Overview of Federal, Provincial, and International Ocean Regulatory and Policy Frameworks on the Scotian Shelf

Prepared for the Federal-Provincial Eastern Scotian Shelf
Integrated Management (ESSIM) Working Group

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OVERVIEW OF FEDERAL, PROVINCIAL, AND INTERNATIONAL OCEAN REGULATORY AND POLICY FRAMEWORKS ON THE SCOTIAN SHELF

Prepared for the Federal-Provincial Eastern Scotian Shelf
Integrated Management (ESSIM) Working Group

by

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CONTENTS

ABSTRACT v

RÉSUMÉ v

ACKNOWLEDGEMENTS vii

NOTE TO READER viii

LIST OF ACRONYMS x

1.0 INTRODUCTION 1
  1.1 Area of Application 4
  1.2 Overview Format and Structure 7

2.0 DESCRIPTIONS OF KEY OCEAN USE SECTORS 9
  2.1 Communications and Submarine Cables 9
  2.2 Fisheries 10
  2.3 Marine Conservation and Protection 11
  2.4 Marine Science and Technology 12
  2.5 Marine Transportation 14
  2.6 Maritime Defence 15
  2.7 Oil and Gas 16
  2.8 Recreation, Culture and Tourism 17

3.0 CANADIAN DOMESTIC REGULATORY FRAMEWORKS 19
  3.1 Description of Principal Regulatory/Advisory Bodies 19
    3.1.1 Joint Federal-Provincial Agencies/Departments 19
    3.1.2 Federal Agencies/Departments 20
    3.1.3 Provincial Agencies/Departments 20
    3.1.4 Harbour Authorities 55
    3.1.5 Non-State Management Organizations 56

  3.2 Domestic Regulatory Processes of ESSIM Sectors 57
    3.2.1 Communications and Submarine Cables 57
    3.2.2 Fisheries 65
    3.2.3 Marine Conservation and Protection 81
    3.2.4 Marine Science and Technology 94
    3.2.5 Marine Transportation 97
    3.2.6 Maritime Defence 110
    3.2.7 Oil and Gas 116
    3.2.8 Recreation, Culture and Tourism 130

4.0 INTERNATIONAL LEGAL INSTRUMENTS 143

4.1 Introduction 143
4.2 Key International Legal Instruments by Sector 145
  4.2.1 Communications and Submarine Cables 145
  4.2.2 Fisheries 145
  4.2.3 Marine Conservation and Protection 147
  4.2.4 Marine Science and Technology 149
  4.2.5 Marine Transportation 150
  4.2.6 Maritime Defence 152
  4.2.7 Oil and Gas 153
  4.2.8 Recreation, Culture and Tourism 153
4.3 Summary of International Legal Instruments by Sector 153
  4.3.1 Communications and Submarine Cables 154
  4.3.2 Fisheries 159
  4.3.3 Marine Conservation and Protection 169
  4.3.4 Marine Science and Technology 184
  4.3.5 Marine Transportation 186
  4.3.6 Maritime Defence 205
  4.3.7 Oil and Gas 207
  4.3.8 Recreation, Culture and Tourism 210

5.0 SUMMARY AND KEY CHALLENGES 231

TABLES

Table 3-1 Regulatory process for communications and submarine cables 62
Table 3-2 Memoranda of Understanding applicable to the Eastern Scotian Shelf Oceans Management Area 132
Table 4-1 Key International Legal Instruments by Sector 212

FIGURES

Figure 3-1 Regulatory process for international submarine cables/pipelines 64

ABSTRACT

This regulatory overview is divided into four parts covering (i) key ocean use sectors in the management area, (ii) applicable federal and provincial policy and regulatory frameworks, (iii) relevant international legal agreements and instruments, and (iv) a brief analysis of existing intra- and intersectoral integration among ocean sectors and their regulatory frameworks. The structure of the document is designed to highlight linkages among various ocean sectors, and to identify and describe management and regulatory deficiencies, gaps and overlaps. A description of key ocean use sectors provides a survey of the important ocean sector activities and trends in the management area, including a description of ongoing and future development activities for each sector. The section on Canadian domestic regulatory frameworks describes the principal federal and provincial regulatory and advisory departments, agencies and boards with mandates in or affecting the management area. This section identifies the key regulatory frameworks for each ocean sector, including the application of federal and provincial (including joint federal-provincial) jurisdictions, legislation, regulations and policies. Government roles and processes for planning, decision making and approvals are described, and existing requirements for intra- and intersectoral integration are highlighted. This includes a listing of interdepartmental Memoranda of Understanding and related arrangements. The section on international legal instruments describes the key instruments applicable to ocean use sectors in the management area. This section provides a comprehensive listing of international bodies, agreements and instruments, and describes their scope and purpose, and their implementation and application in Canadian law, with specific reference to the Scotian Shelf. Sector-specific summary charts of international legal instruments are provided for easy reference. The final section provides suggestions on strengthening and revitalizing existing intra- and intersectoral integration.

RÉSUMÉ

Le présent survol de réglementation est divisé en quatre parties, portant i) sur les principaux secteurs d'utilisation de l'océan dans la zone de gestion, ii) sur les cadres réglementaires et stratégiques provinciaux et fédéraux applicables, iii) sur les accords et instruments juridiques internationaux pertinents, et iv) sur une une brève analyse de l'interaction intra et intersectorielle qui existe entre les divers secteurs d'utilisation de l'océan et sur les cadres réglementaires. Le document est organisé de manière à mettre en évidence les liens entre les divers secteurs et à cerner et décrire les insuffisances, lacunes et chevauchements en matière de gestion et de réglementation. Une description des principaux secteurs d'utilisation permet de brosser un tableau des grandes activités ayant cours dans l'océan et des tendances qui se dessinent dans la zone de gestion, en faisant état, notamment, des activités actuelles et futures de mise en valeur dans chaque secteur. La partie sur le cadre réglementaire canadien décrit les principaux ministères, organismes et autres organes fédéraux et provinciaux dont le mandat touche la zone de gestion. Cette partie rend compte des principaux instruments réglementaires dans chaque secteur d'utilisation de l'océan, notamment de l'application des droits, lois, règlements et politiques des gouvernements fédéral et provinciaux (y compris des instruments fédéraux-provinciaux). On y décrit les rôles et processus gouvernementaux en matière de planification, de processus décisionnel et d'approbations, ainsi que les exigences connexes à l'intégration inter et intrasectorielle. On y trouve notamment une liste des protocoles d'entente interministériels et des

accords en découlant. La partie sur la législation internationale fait état des principaux instruments applicables aux secteurs d'utilisation de l'océan dans la zone de gestion. Elle contient une liste exhaustive des divers organes, accords et instruments internationaux et décrit leur portée et leur objet, ainsi que leur champ de mise en œuvre et d'application eu égard à la loi canadienne, en particulier en ce qui a trait au plateau néo-écossais. Des tableaux sommaires, par secteur, des instruments juridiques internationaux sont également présentés à des fins de consultation rapide. La dernière partie offre des suggestions sur les moyens de renforcer et de revitaliser l'intégration intra et intersectorielle actuelle.

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NOTE TO READER

This Guide provides an overview of the federal, provincial and joint regulatory procedures affecting the integrated management of the Eastern Scotian Shelf and is generated in support of the ESSIM Initiative.

Significant input was provided by representatives of various regulatory departments and agencies; however, such assistance should not be construed as an intent on the part of any regulator to endorse or apply this Guide as an official regulatory document or a depiction of the views of the Government of Canada. In the event of any inconsistency between this Guide and official regulatory documents, the latter shall prevail.

This Guide is not intended to provide legal or other professional advice and readers should seek specific legal advice on any particular issue with which they are concerned. The opinions expressed in this report are those of the authors and do not necessarily reflect those of the Government of Canada.

Readers are advised of the following key recent changes to the structure of the federal government that will have an impact on ocean management:

1. On 12 December 2003, the Prime Minister announced that the Canadian Coast Guard's marine safety policy was being transferred to Transport Canada. The purpose of this change is to provide a single point of contact for mariners dealing with marine navigation policy and related issues. During March-April 2004, the Coast Guard will be transferring responsibilities for pleasure craft safety, marine navigation services, and pollution prevention and response over to Transport Canada. This will mean the transfer of the Office of Boating Safety, the regulatory and policy elements of the Environmental Protection Program, and the Canada Shipping Act Regulatory Reform Project Team. Responsibilities for navigable waters protection, including environmental assessments, are being transferred to Transport Canada.

2. On 12 December 2003, the Prime Minister announced the creation of the new portfolio of Public Safety and Emergency Preparedness. It includes emergency preparedness, crisis management, national security, corrections, policing, oversight, crime prevention and border functions. The Public Safety and Emergency Preparedness Portfolio is responsible for protecting Canadians and helping to maintain a peaceful and safe society. The Portfolio consists of the Department, and six agencies: Royal Canadian Mounted Police (RCMP), Canadian Security Intelligence Service (CSIS), Correctional Service of Canada (CSC), National Parole Board (NPB), Canada Firearms Centre, and Canada Border Services Agency. There are also three independent review bodies that ensure accountability and respect for the rule of law, and two statutory review bodies of CSIS. The Department's role within the Portfolio is to support the Minister in giving effective direction to the agencies responsible for policing and law enforcement, national security, corrections and conditional release. The Portfolio works in close collaboration with Justice Canada, which has primary responsibility for federal criminal justice policy. The

Portfolio also works closely with other federal departments, provincial and territorial governments, as well as the voluntary and private sectors.

3. On 12 December 2003, the Canada Border Services Agency (CBSA) was created. CBSA is part of the new portfolio of Public Safety and Emergency Preparedness, which includes emergency preparedness, crisis management, national security, corrections, policing, oversight, crime prevention, as well as border services. The CBSA reports to the Deputy Prime Minister and Minister of Public Safety and Emergency Preparedness. The CBSA brings together all the major players involved in facilitating and managing the movement of goods and people into Canada. It integrates several key functions previously spread among three organizations: the Customs Program from the Canada Customs and Revenue Agency, the Intelligence, Interdiction and Enforcement Program from Citizenship and Immigration Canada, and the Import Inspection at Ports of Entry Program from the Canadian Food Inspection Agency. The CBSA's mandate is to manage the nation's borders by administering and enforcing about 75 domestic laws that govern trade and travel, as well as international agreements and conventions.

LIST OF ACRONYMS

ACOA	Atlantic Canada Opportunities Agency
AMRS	Alliance for Marine Remote Sensing
AOI	Area of Interest
AOR	Area of Responsibility
CCG	Canadian Coast Guard
CCME	Canadian Council of Ministers of the Environment
CCRA	Canada Customs and Revenue Agency
CEAA	Canadian Environmental Assessment Agency
CEPA	Canadian Environmental Protection Act
CHS	Canadian Hydrographic Service
CIC	Citizenship and Immigration Canada
CMA	Coastal Management Area
CNOPB	Canada-Newfoundland Offshore Petroleum Board
CNSOPB	Canada-Nova Scotia Offshore Petroleum Board
C-NSOPRAIA	Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act
COOGER	Center for Offshore Oil and Gas Environmental Research
CPC	Canada Ports Corporation
CRTC	Canadian Radio-television and Telecommunications Commission
CTA	Canadian Transportation Agency
CWS	Canadian Wildlife Service of Environment Canada
DFO	Fisheries and Oceans Canada
DND	Department of National Defence
DEL	Nova Scotia Department of Environment and Labour
DOT	Transport Canada (Department of Transport)
EC	Environment Canada
EEZ	Exclusive Economic Zone
ESSIM	Eastern Scotian Shelf Integrated Management Initiative
FAC	Foreign Affairs Canada
GSCA	Geological Survey of Canada--Atlantic
IM	Integrated Management
IMSWG	Interdepartmental Marine Security Working Group
IUCN	The World Conservation Union
LOMA	Large Ocean Management Area
MARLANT	Maritime Forces Atlantic
MEQ	Marine Environmental Quality
MOU	Memorandum of Understanding
MPA	Marine Protected Area
NMCA	National Marine Conservation Areas
NSEIA	Nova Scotia Environmental Industry Association
OTANS	Offshore/Onshore Technologies Association of Nova Scotia
PRAC	Petroleum Research Atlantic Canada
PRC	Pelagics Research Council
RA	Responsible Authority

SMGL	Small Mesh Gear Line
TCF	trillion cubic feet
TSB	Canadian Transportation Accident Investigation and Safety Board
UNCED	United Nations Conference on Environment and Development
UNEP	United Nations Environment Programme

1.0 INTRODUCTION

The Eastern Scotian Shelf Integrated Management (ESSIM) Initiative was announced by the Minister of Fisheries and Oceans in December 1998 in conjunction with The Gully Marine Protected Area (MPA) Area of Interest (AOI). This followed the recommendation of the 1998 Sable Gully Conservation Strategy[1] that integrated management approaches be applied to the larger ocean area surrounding The Gully AOI. The ESSIM Initiative is a collaborative management and planning process for the Eastern Scotian Shelf Oceans Management Area,[2] a Large Ocean Management Area (LOMA) as defined by Fisheries and Oceans Canada's (DFO's) *Policy and Operational Framework for Integrated Management of Estuarine, Coastal and Marine Environments in Canada* (the *IM Policy and Operational Framework*)[3] pursuant to *Canada's Oceans Strategy*.[4]

The aim of the ESSIM Initiative is to develop and implement an integrated management plan for the eastern Scotian Shelf. This is the first offshore oceans management initiative under Canada's *Oceans Act*, which states that the Minister of Fisheries and Oceans "shall lead and facilitate the development and implementation of plans for the integrated management of all activities or measures in or affecting estuaries, coastal waters and marine waters" (section 31).

DFO selected the eastern Scotian Shelf area for the development and implementation of integrated management under the *Oceans Act* for a number of reasons: (i) it possesses important living and non-living marine resources that are used by multiple industries or sectors and regulated by government; (ii) it is an area of high biological diversity and productivity; and (iii) the multiple-use and multi-regulated nature of the area has led to a number of existing and potential user and resource conflicts.

The specific objectives of the ESSIM Initiative are as follows:

- to integrate the management of all activities in the Eastern Scotian Shelf Ocean Management Area;
- to promote the conservation, effective management and responsible use of marine resources and ocean space;
- to support the maintenance of natural biological diversity and productivity; and
- to promote community sustainability by fostering opportunities for economic diversification and sustainable wealth generation for coastal communities and stakeholders.

Phase I of the ESSIM Initiative resulted in the production of the *Eastern Scotian Shelf Integrated Management (ESSIM) Overview and Use Audit* (the *Use Audit*) in December 1999. Used primarily as an internal, unpublished Fisheries and Oceans Canada resource document, the *Use Audit* set the initial groundwork for an integrated management plan for the eastern Scotian Shelf. It consisted of a compilation of background materials on ocean activity and management in the eastern Scotian Shelf area.

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[1] Fisheries and Oceans Canada, 1998. *The Sable Gully Conservation Strategy*. Oceans Act Coordination Office, Maritimes Region, unpublished committee document. 51 pp.

[2] For more information on the ESSIM Initiative, see <http://www.mar.dfo-mpo.gc.ca/oceans/>.

[3] Fisheries and Oceans Canada, 2002. *Policy and Operational Framework for Integrated Management of Estuarine, Coastal and Marine Environments in Canada*. Oceans Directorate, Ottawa, 36 pp. Available online: <http://www.dfo-mpo.gc.ca/oceanscanada/newenglish/htmdocs/cos/publications_e.htm>.

[4] Fisheries and Oceans Canada, 2002. *Canada's Oceans Strategy*. Oceans Directorate, Ottawa, 30 pp. Available online: <http://www.dfo-mpo.gc.ca/oceanscanada/newenglish/htmdocs/cos/publications_e.htm>.

Phase II of the ESSIM Initiative resulted in the production of two companion discussion papers as a basis for discussion at the 1st ESSIM Forum Workshop in February 2002, which initiated and promoted multi-stakeholder dialogue on integrated oceans management and the key elements of the Initiative.

The first discussion paper, *Development of a Collaborative Management and Planning Process*,[5] describes the key activities conducted to date for the ESSIM Initiative in terms of the identification of human use interests and activities, ecosystem considerations, and management issues and requirements for the Ocean Management Area. The process of identifying and engaging stakeholders, including DFO Sectors, federal and provincial departments, agencies and boards, First Nations, marine industry and resource user groups, and community groups, is described. The document also places the ESSIM Initiative in the national oceans policy and management context under the *Oceans Act*, highlighting the links to *Canada's Oceans Strategy* and DFO's *IM Policy and Operational Framework*. The key elements of a future management and planning process and structure for the ESSIM Initiative are identified to stimulate and guide discussion on the structure and process needed to design, develop and implement integrated oceans management and planning for the Ocean Management Area.

The second discussion paper on *Issues, Challenges and Opportunities*[6] provides an overview of existing and potential issues facing oceans management in the eastern Scotian Shelf area. It builds and expands on the 1999 *ESSIM Overview and Use Audit* and numerous information sharing and discussion sessions with stakeholder groups and individuals. The document addresses the following issue areas: multiple ocean use; marine safety; marine conservation and environmental protection; compliance and enforcement; jurisdiction and institutional arrangements; science, research and development; and cultural resource protection. A set of benefits and opportunities emanating from the ESSIM process are also presented for consideration.

The *Proceedings of the 1st Eastern Scotian Shelf Integrated Management (ESSIM) Forum Workshop, Halifax, Nova Scotia, 20–21 February 2002* summarizes discussion on the proposed ESSIM Forum and the requirements for a networked structure to engage and link DFO, other government partners, and oceans stakeholders for integrated oceans management and planning.[7] The *Proceedings of the 2nd Eastern Scotian Shelf Integrated Management (ESSIM) Forum Workshop, Halifax, Nova Scotia, 18–19 February 2003* summarizes the discussion on the plan elements in the *Strategic Planning Framework*[8] and on the proposed Forum and the requirements for a networked structure to engage and link DFO, other government partners, and ocean communities of interest for integrated ocean management and planning.[9]

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[5] See <http://www.mar.dfo-mpo.gc.ca/oceans/e/essim/essim-reports-e.html>.

[6] See <http://www.mar.dfo-mpo.gc.ca/oceans/e/essim/essim-reports-e.html>.

[7] S. Coffen-Smout, G. Herbert, R.J. Rutherford, and B.L. Smith (eds.), 2002. Proceedings of the 1st Eastern Scotian Shelf Integrated Management (ESSIM) Forum Workshop, Halifax, Nova Scotia, 20–21 February 2002, *Can. Manuscr. Rep. Fish. Aquat. Sci.* 2604: xiii + 63 pp.

[8] ESSIM Forum Secretariat, *A Strategic Planning Framework for the Eastern Scotian Shelf Ocean Management Plan: A Discussion Paper prepared for the ESSIM Forum* (DFO, January 2003).

Building on the findings of the *Use Audit*, the two ESSIM discussion papers, and the key themes of the two ESSIM Forum Workshops, the purpose of the present document, the *Overview of Federal, Provincial, and International Ocean Regulatory and Policy Frameworks on the Scotian Shelf* (the *Regulatory Overview*), is to set out the existing regulatory powers and frameworks of the key ocean uses on the Scotian Shelf. The *Regulatory Overview* has two main objectives:

- to identify and describe the roles, responsibilities and decision-making activities of the various federal, provincial and international regulatory and advisory bodies; and
- to provide an assessment of intra- and intersectoral requirements for an integrated planning and management process.

Although the focus of this *Regulatory Overview* is on the eastern Scotian Shelf, the regulatory and policy frameworks described are broadly applicable to the entire Scotian Shelf and the coastal waters off Nova Scotia. Ocean uses on the Scotian Shelf are numerous; however, the scope of the *Regulatory Overview* is limited to eight key ocean use sectors in the area. These sectors were chosen because they currently or may potentially face uncertain ecological change, user conflicts, or increasing levels of competition for ocean space. The sectors are categorized as follows:

- Communications and Submarine Cables;
- Fisheries;
- Marine Conservation and Protection;[10]
- Marine Science and Technology;
- Marine Transportation;
- Maritime Defence;[11]
- Oil and Gas; and
- Recreation, Culture and Tourism.

By highlighting the overlaps and gaps in the regulation of these uses, regulators and stakeholders will be able to assess the requirements of various sectors to participate effectively in an integrated ocean management and planning process.

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[9] R.J. Rutherford, S. Coffen-Smout, G. Herbert, and B.L. Smith (eds.), 2003. Proceedings of the 2nd Eastern Scotian Shelf Integrated Management (ESSIM) Forum Workshop, Halifax, Nova Scotia, 18–19 February 2003, Can. Manuscr. Rep. Fish. Aquat. Sci. 2637: x + 63 pp.

[10] Marine conservation and protection is traditionally viewed as a principle that transcends all oceans sectors. However, as an ocean sector or community of interest, marine conservation and protection competes for ocean space with other oceans sectors and engages many diverse stakeholders from the environmental community. As a non-consumptive ocean use conservation area, marine conservation and protection may be compatible or incompatible with other users of ocean space and resources. The interactions between marine conservation tools and approaches (e.g., MPAs and whale sanctuaries) and all other ocean use activities must be addressed through integrated oceans management and planning processes.

[11] The Maritime Defence sector is interpreted broadly to encompass maritime law enforcement and maritime security aspects and is not specific to the mandate of the Canadian Forces.

The *Regulatory Overview* was prepared by the Oceans and Coastal Management Division of Fisheries and Oceans Canada (Maritimes Region) as a working document for review and vetting by the Federal-Provincial ESSIM Working Group. As of June 2004 the Working Group includes representatives from the following federal and provincial government departments and agencies:

- **Federal**: Canadian Environmental Assessment Agency; Canadian Heritage; Environment Canada; Fisheries and Oceans Canada; National Defence; Natural Resources Canada; Transport Canada; National Research Council; Industry Canada; Transportation Safety Board; Justice Canada; Health Canada; Indian and Northern Affairs; Atlantic Canada Opportunities Agency; Public Works and Government Services; Royal Canadian Mounted Police; Foreign Affairs Canada.
- **Joint Federal-Provincial**: Canada-Nova Scotia Offshore Petroleum Board; Canada-Newfoundland Offshore Petroleum Board.
- **Provincial – (Nova Scotia)**: Departments of Agriculture and Fisheries; Natural Resources; Environment and Labour; Department of Energy; and Intergovernmental Affairs; **(Newfoundland and Labrador):** Department of Mines and Energy.

1.1 Area of Application

Geographically, the eastern Scotian Shelf encompasses approximately 325,000 km^2, from the LaHave Basin in the west to the Laurentian Channel in the east, and from the coastal baselines as defined under international law to the outer limits of the continental shelf. The area to which this *Regulatory Overview* applies, however, is the Large Ocean Management Area defined for the Eastern Scotian Shelf Integrated Management (ESSIM) Initiative – the area extending from the coast to beyond the 200-nautical mile (NM) exclusive economic zone (EEZ) to the extended juridical continental shelf. ESSIM began as an offshore integrated management project. This regulatory overview was initiated when ESSIM had an offshore focus and as a result, the overview largely focuses on the offshore regulatory regime. It is recognized that as this Initiative expands to include coastal management it will be necessary to revise this document to include regional, municipal, and First Nations aspects.

Although each sector may be governed by specific administrative or legislative limits, the Eastern Scotian Shelf Ocean Management Area, including the contiguous zone (12 NM beyon the 12 NM territorial sea), the exclusive economic zone and the continental margin, are Canadian waters and lands pursuant to the federal *Oceans Act*.

Section 10 of the *Oceans Act* defines the contiguous zone to be 24 NM from the nearest point of the baselines of the 12-NM territorial sea of Canada. Section 11 sets out the regulatory powers in the contiguous zone as follows:

> A person who is responsible for the enforcement of a federal law that is a customs, fiscal, immigration or sanitary law and who has reasonable grounds to believe that a person in the contiguous zone of Canada would, if that person were to enter Canada, commit an offence under that law may, subject to Canada's international obligations, prevent the entry of that person into Canada or the

> commission of the offence and, for greater certainty, section 25 of the *Criminal Code* applies in respect of the exercise by a person of any powers under this section.

Pursuant to section 13 of the *Oceans Act*, the limits of the EEZ extend from the 12 NM territorial sea to 200 NM. In the EEZ, Canada has the following sovereign rights, as set out by section 14 of the *Oceans Act*:

> (a) sovereign rights in the exclusive economic zone of Canada for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil, and with regard to other activities for the economic exploitation and exploration of the exclusive economic zone of Canada, such as the production of energy from the water, currents and winds;
> (b) jurisdiction in the exclusive economic zone of Canada with regard to
> (i) the establishment and use of artificial islands, installations and structures,
> (ii) marine scientific research, and
> (iii) the protection and preservation of the marine environment; and
> (c) other rights and duties in the exclusive economic zone of Canada provided for under international law.

Under section 17 of the *Oceans Act*, the continental shelf is defined as the seabed and subsoil of the submarine areas that extend beyond the EEZ throughout the natural prolongation of the land territory of Canada to the outer edge of the continental margin as determined by international law.[1] Section 18 of the *Oceans Act* sets out the ocean uses and regulatory activities permitted on the continental shelf as follows:

> Canada has sovereign rights over the continental shelf of Canada for the purpose of exploring it and exploiting the mineral and other non-living natural resources of the seabed and subsoil of the continental shelf of Canada, together with living organisms belonging to sedentary species, that is to say, organisms that, at the harvestable stage, either are immobile on or under the seabed of the continental shelf of Canada or are unable to move except in constant physical contact with the seabed or the subsoil of the continental shelf of Canada.

This *Regulatory Overview* examines the ocean uses and the regulatory activities exercised in the Eastern Scotian Shelf Large Ocean Management Area (see Map 1) from the 12-NM limit to the continental shelf, the outer edge of which will be delimited when Canada claims jurisdiction through a submission to the Commission on the Limits of the Continental Shelf in accordance with Article 76 of the United Nations Convention on Law of the Sea.

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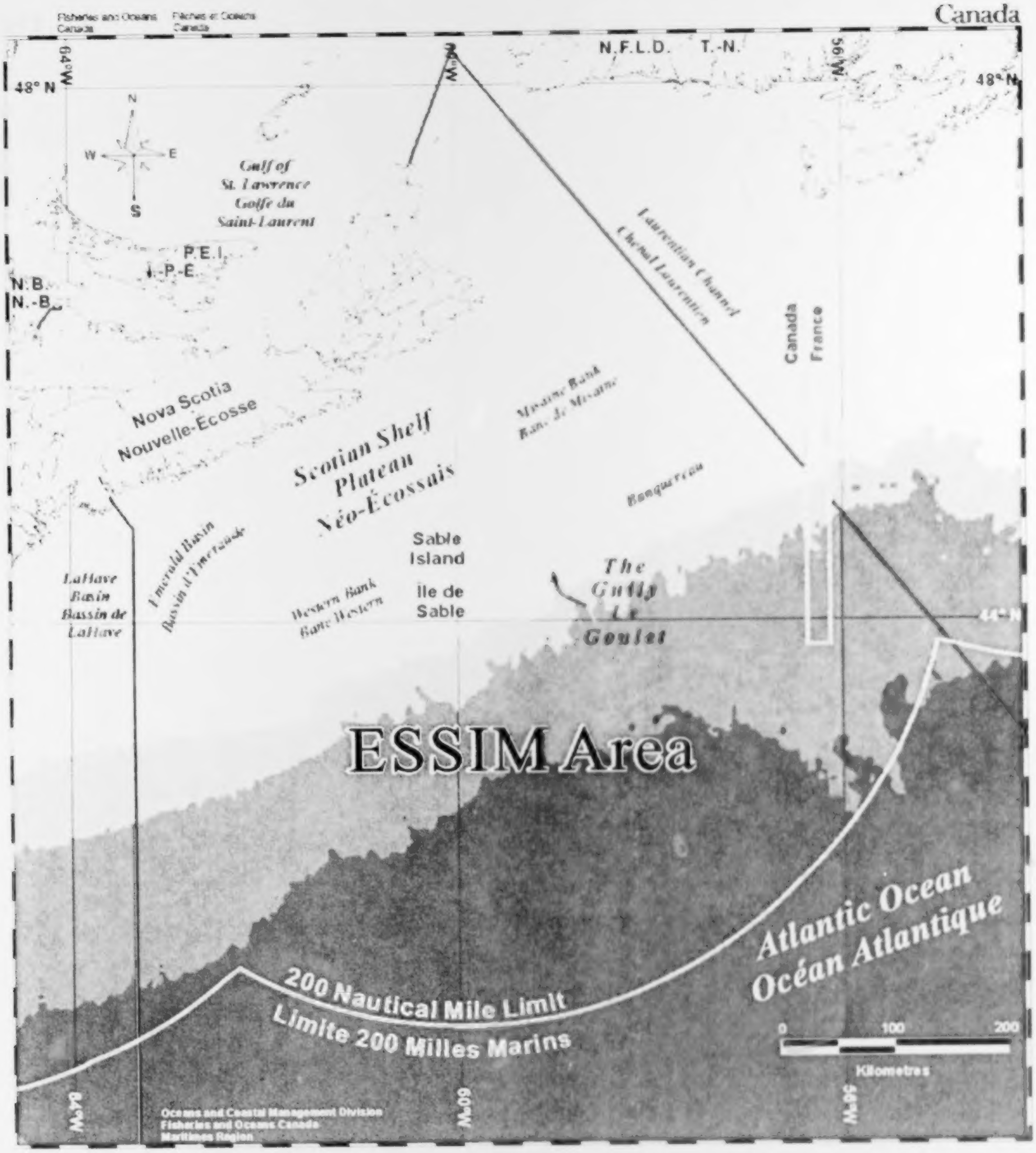
[1] Paragraph 76(5) of the United Nations Convention on the Law of the Sea, 10 December 1982, U.N. Doc. A/CONF.62/122, reprinted in (1982) 21 *International Legal Materials* 1281, defines the outer limit of the continental shelf as, assuming the geomorphology allows it, the seabed and subsoil of the submarine areas which extend to the outer edge of the continental margin, determined under international law as either 350 NM from the baselines or 100 NM from the 2,500 metre isobath. See online: http://www.un.org/depts/los/convention_agreements/convention_overview_convention.htm.

Map 1: Eastern Scotian Shelf Large Ocean Management Area


Fisheries and Oceans Canada
Pêches et Océans Canada
Canada
64°W
60°W
56°W
48° N
44° N
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W
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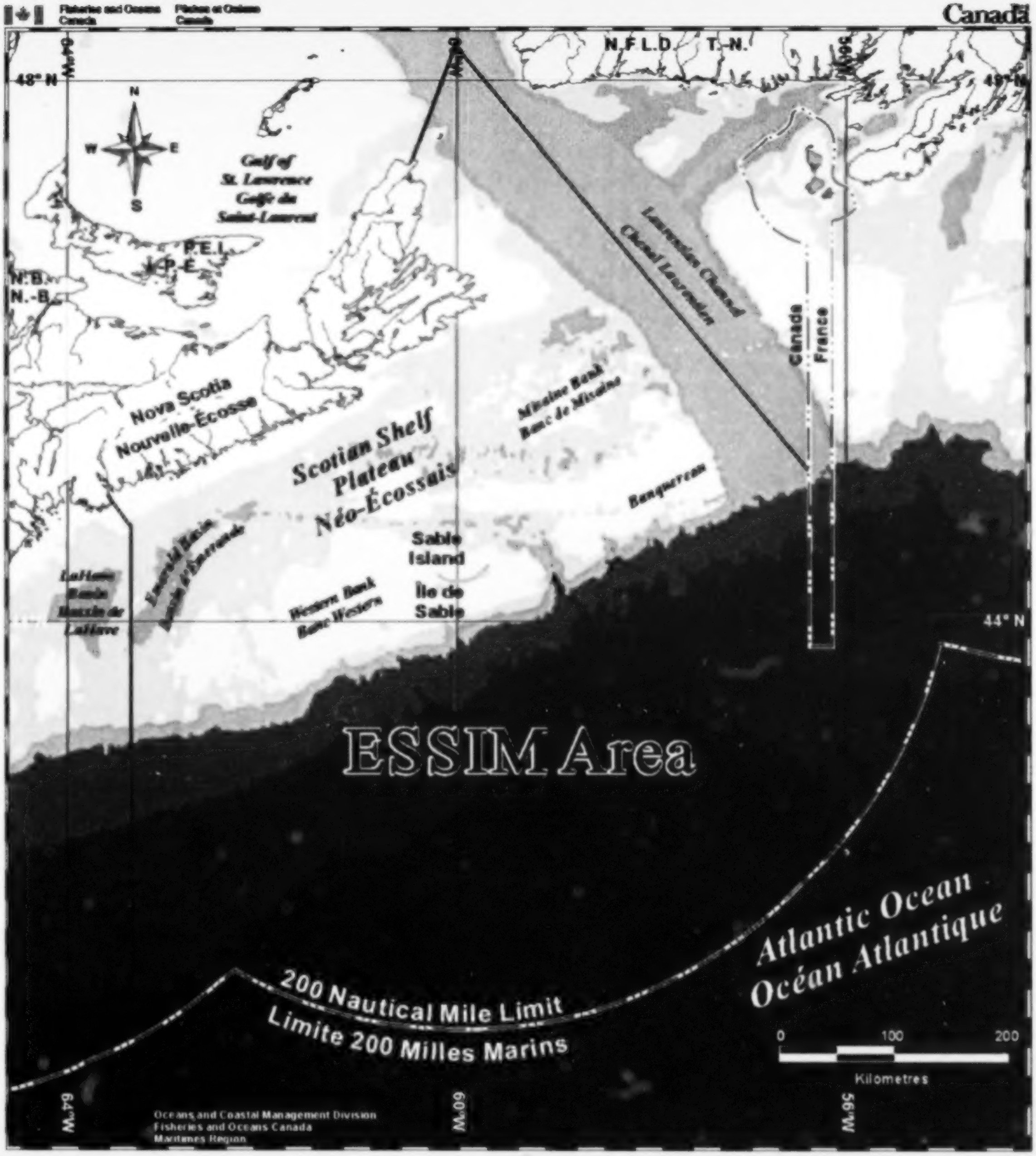
Gulf of St. Lawrence
Golfe du Saint-Laurent
N.F.L.D.
T.-N.
P.E.I.
Î.-P.-É.
N.B.
N.-B.
Laurentian Channel
Chenal Laurentien
Canada
France
Nova Scotia
Nouvelle-Écosse
Scotian Shelf
Plateau Néo-Écossais
Misaine Bank
Banc de Misaine
Banquereau
Emerald Basin
Bassin d'Émeraude
LaHave Basin
Bassin de LaHave
Western Bank
Banc Western
Sable Island
Île de Sable
The Gully
Le Goulet
ESSIM Area
Atlantic Ocean
Océan Atlantique
200 Nautical Mile Limit
Limite 200 Milles Marins
0
100
200
Kilometres
Oceans and Coastal Management Division
Fisheries and Oceans Canada
Maritimes Region

Map 1: Eastern Scotian Shelf Large Ocean Management Area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Nova Scotia
Nouvelle-Écosse
Laurentian Channel
Chenal Laurentien
Canada
France
Scotian Shelf
Plateau
Néo-Écossais
Misaine Bank
Banc de Misaine
Banquereau
Sable
Island
Île de
Sable
Western Bank
Banc Western
Emerald Basin
Bassin d'Émeraude
LaHave
Basin
Bassin de
LaHave
ESSIM Area
Atlantic Ocean
Océan Atlantique
200 Nautical Mile Limit
Limite 200 Milles Marins
0
100
200
Kilometres
Oceans and Coastal Management Division
Fisheries and Oceans Canada
Maritimes Region

1.2 Overview Format and Structure

The *Regulatory Overview* is divided into four main parts covering the (i) key ocean sectors in the Oceans Management Area, (ii) applicable federal and provincial policy and regulatory frameworks, (iii) relevant international legal agreements and instruments, and (iv) a summary analysis of existing intra- and intersectoral integration among ocean sectors and their regulatory frameworks. The format and structure for the document is designed to highlight the linkages among the various ocean sectors, and to identify and describe management and regulatory deficiencies, gaps and overlaps.

Section 2.0, *Description of Key Ocean Use Sectors*, provides a survey of the important ocean sector activities and trends in the Ocean Management Area. This includes a brief description of ongoing and future development activities for each sector. The reader is referred to the *ESSIM Issues, Challenges and Opportunities* discussion paper for a more detailed discussion of management issues relating to the effects of ocean use sectors and intra- and intersectoral interactions.

Section 3.0, *Canadian Domestic Regulatory Frameworks*, describes the principal federal and provincial regulatory and advisory departments, agencies and boards with mandates in or affecting the Ocean Management Area. This section identifies the key regulatory frameworks for each ocean sector, including the application of federal and provincial (including joint federal-provincial) jurisdictions, legislation, regulations and policies. Government roles and processes for planning, decision making and approvals are described, and existing requirements for intra- and intersectoral integration are highlighted. This includes a listing of interdepartmental Memoranda of Understanding and related arrangements. The regulatory and management frameworks for each sector are also summarized in chart form for easy reference.

Section 4.0, *International Legal Instruments*, describes the key international legal instruments applicable to ocean use sectors in the Ocean Management Area. This section provides a comprehensive listing of international bodies, agreements and instruments, and describes their scope and purpose, and their implementation and application in Canadian law, with specific reference to the eastern Scotian Shelf. Sector-specific summary charts are provided for easy reference.

Section 5.0, *Summary and Recommendations*, provides an analysis of the domestic and international regulatory frameworks in or affecting the Ocean Management Area. In addition to identifying regulatory gaps, overlaps and related inefficiencies in the current regulatory frameworks, this section assesses the requirements for intrasectoral and intersectoral integration for ocean planning and management.

2.0 DESCRIPTIONS OF THE KEY OCEAN USE SECTORS

This section provides brief descriptions of the key ocean sectors in the Eastern Scotian Shelf Ocean Management Area. As noted above, these sectors are categorized as follows:

- Communications and Submarine Cables;
- Fisheries;
- Marine Conservation and Protection;
- Marine Science and Technology;
- Marine Transportation;
- Maritime Defence;
- Oil and Gas; and
- Recreation, Culture and Tourism.

The intent of this section is to highlight the principal activities and important trends for these ocean-use sectors, including present and potential development activities. The reader is also directed to the discussion paper *ESSIM Issues, Challenges and Opportunities*[13] for a more comprehensive discussion of management issues relating to nature of use and effects of each sector.

2.1 Communications and Submarine Cables

The most common submarine cables laid on the seafloor are telecommunications and electrical power transmission cables. The latter type is important in the coastal zone and could become more important if offshore wind farms are built in Canada.

Marine telecommunications was one of the fastest growing areas of oceans technology until the recent economic downturn. However, submarine cables remain essential strategic infrastructure for Canada, providing key national interests and services. Industry development has now paused and no new cable systems are planned, as existing systems operate at less than full capacity. Canada's seabed is used for laying submarine fibre-optic cables to all parts of the world. There are currently nine active submarine cables on the Scotian Shelf: two APOCS cables (APOCS 1C and 2) from Cape Breton to Newfoundland, three Teleglobe Canada cables landing at Pennant Point, Nova Scotia (CANUS 1, CANTAT-3, TAT-9), and the SableCom cable from Beaver Harbour, Nova Scotia to Sable Island, (formerly CANTAT-2 re-commissioned by International Telecom). Three 360atlantic cables link Lynn, Massachusetts with Halifax, Nova Scotia, Dublin, Ireland and Southport, UK. There are also numerous inactive cables on the Scotian Shelf and Grand Banks, some of which are more than 100 years old, and international cables, both commercial and scientific, cross Canada's Atlantic continental shelf linking northeastern USA with Europe. Military surveillance cables may also exist on the Scotian Shelf.

The Greater Halifax Partnership promotes Halifax as a hub for a global fibre optic communications network to serve international telecommunications service providers, Internet

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[13] Available online: <http://www.mar.dfo-mpo.gc.ca/oceans/e/essim/essim-reports-e.html>.

Service Providers (ISPs) and large corporations with global enterprise networks. In terms of future telecom cable projects, one new transAtlantic cable landfalling in Nova Scotia is foreseeable by 2010. However, recent media reports indicate that overcapacity in the fibre optics market and the depressed economic climate for telecommunications companies in the IT sector are affecting decisions to expand global cable networks.

As of 2003 there were two proposals for high-voltage DC submarine power cables between New York and Nova Scotia. The National Energy Board would lead public hearings on the issue of energy export should these proposals advance to the project development stage. Although currently on indefinite hold, the Hudson Energy Project by GenPower LLC proposes to construct an 834 MW combined cycle, natural gas-fired power generation facility in Goldboro, Nova Scotia and to transmit power to New York via a submarine 500 kV high-voltage DC cable.[14] The project is currently in the pre-design phase. This phase will include an engineering feasibility and design study, which will further refine the project components described to date. It is anticipated that the onshore construction and installation of the submarine cable will take 24 to 30 months to complete.

A U.S.-Canadian consortium has proposed Project Neptune,[15] an international submarine power line network from Nova Scotia and New Brunswick to the northeastern USA. An application for the project filed with the U.S. Federal Energy Regulatory Commission (FERC) was approved in July 2001.[16] A New Brunswick to New York link is scheduled for late 2004. Links are planned for 2005 and 2006 that would connect Nova Scotia (Goldboro and southwest Nova Scotia) and Maine with the Boston area and Connecticut, and, through the original New Brunswick link, to New York.

2.2 Fisheries

The eastern Scotian Shelf has traditionally supported important domestic fisheries for the groundfish species of Atlantic cod, haddock, pollock, redfish, small flounders (plaice, yellowtail, witch), and Atlantic halibut. Groundfish species of lesser importance include cusk, white hake and wolffish. In September 1993, the fisheries for the most important groundfish stocks – cod and haddock – on the eastern Scotian Shelf were closed, and strict limits were put on other fisheries that landed these stocks as by-catch. As of 2004 these fisheries remain closed and, although silver hake, skate, monkfish and turbot fisheries have taken on some importance, the result has been withdrawal of groundfish effort from many grounds east of Halifax.

Fisheries for invertebrate species have increased significantly on the Scotian Shelf banks in recent years to the point where scallop, shrimp, crab and surf clam fisheries are of greater economic importance than the groundfish fishery. Fisheries for the small pelagic species, herring and mackerel, are primarily coastal, but resurgence of the eastern Scotian Shelf banks herring stock has supported a fishery of some importance since 1996. Large pelagic species, particularly swordfish, tuna and sharks, support fisheries of large geographic extent, mainly along the outer shelf and slope that includes the eastern Scotian Shelf.

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[14] See project description online: <http://www.genpower.net/projects/scotia/scotia.html> and <http://projects1.battelle.org/genpowereis/>.

[15] See project description online: <http://www.neptunerts.com/>.

[16] Neptune Regional Transmission System Receives FERC Approval, see online: <http://www.neptunerts.com/default.asp?Ss=5&Pg=16>.

Foreign fisheries on the eastern Scotian Shelf are now negligible. Subsequent to extension of jurisdiction in 1977,[17] large-scale foreign fishing has been allowed only for silver hake and squid and only within a restricted area along the shelf edge known as the Silver Hake Box (bounded by the Small Mesh Gear Line (SMGL)). However, squid have not occurred in commercial abundance since the early 1980s and foreign allocations for silver hake have been phased out. The Japanese pelagic longline fleet (1–10 vessels) is still allowed to fish for tuna (other than bluefin) immediately adjacent to the shelf. This activity is restricted to areas outside the 1000-fathom contour until November 15, after which fishing is then restricted to outside the SMGL.

The past decade has seen an approximate 40 percent increase in the value of fisheries in the Scotia-Fundy region, from about $440 million in 1990 to $620 million in 2000. Shellfish comprises about eighty percent of the fisheries by value, while groundfish and pelagics account for thirteen and six percent respectively. It should be noted that groundfish accounted for more than 40 percent of the industry value before the moratorium in the early 1990s. The regional fishing industry is diversifying through a number of new and developing fisheries (e.g., multi-species crab on the Scotian Shelf). Aquaculture is also growing in importance and value in the coastal zone of the region, with potential opportunities for expansion through future offshore sites.[18]

A diversity of gears is used in groundfish fishing, including otter trawls, Danish seines, bottom gillnets and hook-and-line gears (primarily longline). Other important gear types used in the area include scallop dredges, or rakes, hydraulic surf clam dredges, shrimp otter trawls and traps and crab and lobster traps. The offshore banks herring fishery is conducted with pelagic purse seines and large pelagic species, such as tuna and swordfish, are caught using surface longline gear.

2.3 Marine Conservation and Protection

The eastern Scotian Shelf provides diverse habitats and ecosystems that sustain several commercially harvested fisheries along with abundant marine seabirds, seals, northern bottlenose whales, sperm whales, humpback whales, and fragile deep-sea coral and sponge habitat communities. The DFO Whale Sanctuary at the Gully and the 10-km seismic buffer around The Gully Marine Protected Area provide marine environmental protection in the Gully. Area-based fisheries closures across the eastern Scotian Shelf also contribute to marine fisheries conservation. The recently assented *Species at Risk Act*[19] will be used to provide enhanced protection for species of special concern and endangered marine species in the ESSIM area, including the Northern bottlenose whale (endangered), the leatherback turtle (endangered), blue whale (endangered), and the North Atlantic right whale (endangered).

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[17] In 1977, Canada's exclusive fishing zone was extended to 200 NM from its baseline by the enactment of the *Act Respecting the Territorial Sea and Fishing Zones of Canada*, R.S.C. 1970, c. T-7.

[18] Although offshore/open-ocean aquaculture has not been developed or proposed on the eastern Scotian Shelf, there may be potential through innovations in aquacultural engineering. There may also be obstacles to the development of offshore aquaculture in this region related to law and policy and environmental considerations. See open-ocean aquaculture section of the *ESSIM Issues, Challenges and Opportunities* discussion paper.

[19] Species at Risk Act, 2002, c. 29, available online: <http://laws.justice.gc.ca/en/S-15.3/100137.html>.

Marine conservation may be considered as an alternative but viable ocean use with an intrinsic value. While conservation and/or protected areas in the ocean may mean "non-use" to many people, the "non-use" of marine resources/space is a type of "use" when considered in the context of sea use classification and ocean use zoning. Hence, marine conservation is considered a competing ocean use along with all other uses. Environmentalists and conservationists promoting marine conservation as a non-use comprise a marine sector involved in the ESSIM planning and management process.

The Gully MPA is a DFO-managed conservation area in the ESSIM pilot area. DFO and its partners are working to understand this unique ecosystem and to protect its unique ecosystem components through *Oceans Act* regulations that became effective in May 2004. Extensive research has been undertaken to fill the gaps noted in the 1998 Gully Science Review.[20] MPA system planning and sensitive area identification are priority issues in the context of integrated ocean management and planning for the Scotian Shelf.

There are several non-governmental organizations involved in marine conservation and environmental protection on the Scotian Shelf that raise public awareness relating to marine environmental protection and biodiversity conservation. The Ecology Action Centre (EAC) is actively involved in deep-sea coral related issues, marine bioinvasive species, and sustainable fisheries. The World Wildlife Fund of Canada is engaged in MPA systems planning and MPA advocacy from its Nova Scotia office. Researchers at Dalhousie University's Biology Department conduct cetacean studies in the Gully and on the Scotian Shelf. The Sable Island Preservation Trust is involved in the protection and conservation of Sable Island flora, fauna and habitat. The Oceans and Habitat Branch of DFO is also engaged in work to identify ecologically significant areas for spatial planning.

2.4 Marine Science and Technology

There is considerable at-sea activity in the marine science and technology sector, including science research, monitoring and field trials of ocean technologies. Nova Scotia's ocean technology industry is comprised of about 90 companies employing more than 1,800 people with $67 million in salaries, and about $80 million in total revenues. These companies are generally high value-added, labour intensive, and demand high skill and knowledge levels. The majority of Canadian ocean technology firms are export-oriented, with 65 percent of Nova Scotian products and services being exported. Nova Scotia's oceans technology industry offers a diverse range of products and services: ocean mapping and charting; cold ocean engineering and applications; remote sensing; defence and surveillance applications; underwater acoustics; oceanographic instruments; marine biotechnologies; and offshore safety and survival systems.

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[20] See <http://www.dfo-mpo.gc.ca/CSAS/CSAS/English/Research_Years/1998/a98_083E.htm>.

Government requirements, contracts and public spending have been a driving force in the development of the ocean technology industry. However, with more limited budgets for government research facilities, the traditional market for custom-built instruments has declined, and the industry has moved toward the service end of the spectrum and away from manufacturing. Currently, servicing high value equipment is worth as much as manufacturing.

Nova Scotia's ocean technology industry is well suited to help build a knowledge-based economy in Atlantic Canada. Internationally, these companies occupy important niche areas in ocean technology development, such as for EEZ development and management, and environmental applications.

There are several important ocean industry associations in Nova Scotia which cater to and support the high technology sector. The Alliance for Marine Remote Sensing (AMRS) Association is an international network association with professional members in more than 25 countries. AMRS focuses on the promotion of marine applications of satellite, airborne, ground-based and in situ remote sensing, primarily through an association magazine, on-line news service, and technical publications. The Offshore/Onshore Technologies Association of Nova Scotia (OTANS) is a grouping of Nova Scotian and associated companies focusing on the identification, promotion and support of opportunities in hydrocarbon development and related activities, primarily in the offshore. OTANS assists the offshore industry through participation in trade shows and missions, and through a direct voice to government and international industry groups. The Nova Scotia Environmental Industry Association (NSEIA) is a province-wide business group whose purpose is to promote environmental products and services and contribute to sustainable development through the growth, development and interests of environmental businesses in Nova Scotia. NSEIA encompasses around 170 businesses, including a number of oceans and coastal-related environmental consulting firms.

A scan of research activities on the eastern Scotian Shelf reveals many ongoing and planned projects. DFO undertakes numerous biological and stock assessments and oceanographic surveys. The Geological Survey of Canada Atlantic (GSCA of Natural Resources Canada) has ongoing research projects related to: Scotian Shelf geophysical compilations in support of regional studies and boundary definitions; quantitative modelling of tectonic processes; national marine geoscience sampling and data curation; sequence stratigraphy for Eastern Canada; marine resource geoscience digital databases and computing systems; seafloor resources and hazards on the continental margins; sediment dynamics; and quaternary surficial framework.

The Canadian Hydrographic Service (CHS) of Fisheries and Oceans Canada has facilitated and conducted joint projects with industry and other government departments on the Scotian Shelf, including multi-beam surveys of the Gully, Sable Island Bank, Banquereau, Halifax Harbour approaches, and for a natural gas pipeline corridor to Goldboro and a potential pipeline route from Newfoundland to New England. CHS and GSCA have participated in joint projects with industry and academia to develop the SeaMap concept which proposes a base map of seabed shapes, sediment, plant life, and animal life as the infrastructure for integrated ocean management.

There are also many university-affiliated research projects related to the eastern Scotian Shelf environment. These include work in support of systems planning for marine protected areas, studies on bio-structural complexity of the marine benthos and its role in marine ecosystem function, deepwater corals, the GLOBEC-Canada Western Bank Project (physical environmental linkages to food-web coupling of zooplankton and larval fish predators), and Gully whale studies.

The Pelagics Research Council (PRC) was created by the herring and mackerel fishing industry to sponsor research in cooperation with government scientists. Its membership is drawn from industry associations representing mobile and fixed gear harvesters and processing companies. The Council's objective is to fund herring and mackerel research projects to increase the state of knowledge of these species to improve fisheries management. The Fishermen and Scientist's Research Society promotes and supports collaborative research between the government science community, industry and universities. The Sable Offshore Energy Inc.'s R&D proposals program funds research in safety training, accident prevention, quality assurance, health, regulatory/legislative issues, and environmental management and monitoring.

The Environmental Studies Research Funds (ESRF) is a research program that sponsors environmental and social studies and is designed to assist in the decision-making process related to oil and gas exploration and development on Canada's frontier lands. ESRF has supported research on the effects of seismic exploration on the east coast fishery and a workshop on cumulative environmental effects assessment and monitoring on the Grand Banks and Scotian Shelf. The Center for Offshore Oil and Gas Environmental Research (COOGER) supports and coordinates research and monitoring relevant to the oil and gas industry.

Recent foreign research/filming activities in the Gully include those of the Sea Education Association in Woods Hole, Massachusetts, the BBC, the CBC, and the National Geographic Society.

2.5 Marine Transportation

The strategic location of Nova Scotia on the Great Circle Route between eastern North America and Europe makes it important for international shipping and the eastern Scotian Shelf is a significant area for domestic and international vessel transits. The Cabot Strait links trans-Atlantic shipping routes to the St. Lawrence Seaway and the Great Lakes, with over 6,000 commercial vessel transits annually. Halifax is the Atlantic region's most important port in terms of cargo, as well as naval activities. In 2001, the Port of Halifax handled about 14 million tonnes of cargo and received approximately 2,300 ship calls to the port. The Canso Strait area is also a cargo destination of increasing importance as a trans-shipment location for crude oil destined for the USA.[21]

In the Atlantic region, there is nearly a balance between loadings and unloadings, with the tonnage being slightly larger for the former. Domestic cargo movements accounted for 17.4

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[21] The increased trans-shipment activity in Canadian waters stems from the required phase-out of large, single-hull tankers in US waters under the US 1990 *Oil Pollution Act*, as well as the higher liability requirements in the USA versus Canada.

million tonnes in the Atlantic region during 1999. The primary commodities being moved in the region include crude oil and gas, minerals and chemicals, paper and forest products, coal and coke, and various containerized goods.

In addition to large cargo vessels, the marine transportation sector includes ferry, tugs/barges, recreational boating (e.g., yachts) and cruise ship traffic. Fishing vessels can also be considered in this grouping. For the eastern Scotian Shelf area, the only ferry service routes of note are from North Sydney to Port aux Basques and Argentia, Newfoundland, with about 2,070 ferry transits annually through the Cabot Strait. Tug and barge activities tend to be restricted to coastal, inland and harbour waters, as is the case with recreational boating. Cruise ship traffic around Nova Scotia is on the increase, with over 90 visits to Halifax during the 2002 season (May–November) and about 50 visits to Sydney.

2.6 Maritime Defence

The Maritime Forces Atlantic (MARLANT) Area of Responsibility (AOR) covers approximately 6 million km^2 and extends from the Canada-U.S. boundary in the Gulf of Maine to Greenland (60° N), and includes Canada's eastern Arctic to approximately 95° W. MARLANT's AOR for search and rescue in the eastern Atlantic encompasses 4.7 million km^2. MARLANT engages in a range of domestic/national operations and activities, including sovereignty patrols, maritime surveillance, naval training and combat readiness, search and rescue (National Defence is the national lead agency), naval route surveys and mine countermeasures, humanitarian relief and aid to civil authorities, and operational support to other government departments, such as the RCMP (drug law enforcement) and DFO/Canadian Coast Guard (CCG) (fisheries patrols). MARLANT uses a range of platforms, including patrol frigates, coastal defence vessels, destroyers, submarines, ship-borne helicopters and long-range patrol aircraft.

Live weapons firing, bombing and other defence exercises take place in a number of areas in the MARLANT AOR. The 26 operational exercise areas in or near the eastern Scotian Shelf area are zoned for specific types of activities. The principal types of practices include bombing practice from aircraft, anti-aircraft firing from surface vessels, anti-surface firing from surface vessels, and surface and sub-surface exercises. Furthermore, large-scale multinational exercises, known as Maritime Time Command Operational Training, may periodically take place in the region and can involve large numbers of vessels over periods that last from one to several weeks. Naval ships engage in a range of activity types, including surface firing, fuelling, routine shipboard operations, sonar, electronic emissions, sabotage exercises, mine warfare, submarine and aircraft operations, and firefighting measures.

As an ocean use sector, maritime defence activities comprise a significant part of Nova Scotia's oceans-related economy through direct and indirect contributions to the province's GDP, the provision of employment and income, and expenditures for equipment and supplies.

2.7 Oil and Gas

Since the 1950s, over 300,000 km of seismic survey tracks have been recorded and 185 wells (180 wells in the ESSIM Area) have been drilled in the Nova Scotia offshore, an area comprised of 400,000 km^2. Expenditures between 1967 and 1997 offshore of Nova Scotia totalled about $4.6 billion, including $168 million for seismic surveys. Technical summaries of significant and commercial discoveries indicate that the median expectation of discovered and undiscovered potential resource is 18.1 trillion cubic feet (TCF) of gas, 366.1 million barrels of condensate, and 707.6 million barrels of oil. As of 31 March 2003, there were 57 active exploration licences with a total work commitment tendered by petroleum companies of more than $1.5 billion. The total seabed area under CNSOPB licenses as of 31 March 2003 is 76,094 km^2, an area larger than Nova Scotia's landmass of 55,491 km^2. Total active interests in the Nova Scotia offshore area included 57 exploration licenses (74,978 km^2), 33 significant discovery licenses (871 km^2), and 6 production licenses (245 km^2).

Under the CNSOPB rights issuance process, the petroleum industry nominates land parcels three months before a call for bids, after which a 120-day period for public comment commences with the bidding process. As the location of the nominated lands is confidential under Accord legislation,[22] there is no opportunity for public (or other government department) review of lands for important fisheries and ecological sensitivity prior to the call for bids. The rights issuance process has caused concern in the context of ecosystem protection and ocean user conflicts. An exploration license is needed for most exploration activities involving drilling. A significant discovery licence is an intermediate interest designed to maintain an explorer's rights during the period between the first discovery and eventual production. Production rights are conferred by the issuance of a production licence that may be issued in respect of any portion of the offshore area subject to a commercial discovery.

The recently abandoned Cohasset Project produced over 45 million barrels of oil during its 7-year life. The $6.1 billion Sable Offshore Energy Project (SOEP) involves six natural gas fields with an estimated 85 billion m^3 (3 trillion cubic feet TCF) of recoverable gas reserves. The Project involves the development of six natural gas fields near Sable Island, which is located approximately 225 km off the east coast of Nova Scotia.

SOEP has been producing since December 31, 1999 and is operated by ExxonMobil Canada and has a total project life expectancy of about 25 years. New discoveries could extend the project life. The Project design rate is 14.4 million cubic metres per day of raw gas (510 mmscf/d) production yielding 13 million cubic metres per day of sales gas. Approximately 3300 cubic metres of natural gas liquids will also be produced. This production rate can be increased if market conditions and gas supplies warrant. The gas fields are being developed in two tiers. Three of the fields, Venture, North Triumph and Thebaud, were brought into production on December 31, 1999. The remaining three fields – South Venture, Glenelg and Alma – are scheduled come on stream in 2004 to 2007.

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[22] *Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act*, S.C. 1988, c. 28, and the *Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation (Nova Scotia) Act*, S.N.S. 1987, c. 3. ("Accord Implementation Acts" or "Accord Acts").

A Development Application for the Deep Panuke Offshore Gas Development was filed by EnCana Corporation in March of 2002 and was under review with public hearings planned for April 2003. In February 2003, EnCana requested a pause in the regulatory review process. The Board terminated the Public Review of the project and requested that EnCana provide an update on its plans for the project by December 10, 2003.

In March 2002, an arbitration panel struck under Accord legislation settled the Nova Scotia-Newfoundland offshore boundary dispute in the Laurentian Channel area. Industry activity in the Laurentian Sub-Basin is expected to increase now that a boundary has been determined and the administrative issue has been resolved.

Numerous seismic survey programs are shot each year throughout the region. Current pipeline infrastructure is being constructed and expanded and new projects are being planned. The growth of the industry is affecting technical, financial, legal, regulatory and other professional disciplines related to the industry.

2.8 Recreation, Culture and Tourism

Traditional leisure activities in Nova Scotia include many ocean and coastal-related pursuits, including beach visits, boating and nature-related activities. New "niche" tourism activities have emerged, such as ecotourism. Eco-tourism, or nature tourism, involves "travel to a specific area to experience and learn about the natural environment, related adventure and cultural components."[23] Many marine tourism activities fall within the ecotourism category, including whale watching, sea kayaking, other types of boating, and a number of wildlife-related activities. Nature tourist parties tend to stay for longer periods of time, often twice as long as non-nature tourists, and to spend more money – nearly $900 per visit as opposed to $470.

Two other coastal-related tourism activities are important in Nova Scotia: recreational saltwater fishing and recreational boating. In the case of recreational fishing, most government effort (DFO) has focused on regulation of fishing effort. However, a recent study, *Recreational Fishery Development Plan for Nova Scotia*, has identified a number of options for development, including sea-angling activities. With respect to recreational boating, statistics on the number and uses of pleasure craft are limited. In 1994, Statistics Canada identified 66,000 households in Nova Scotia owning some type of recreational vessel, ranging from personal watercraft (seadoos) and sailboards to larger yachts. An analysis of provincial yacht clubs would provide further information on recreational boating activities and patterns. Most recreational cruising activity occurs along the eastern coast of Nova Scotia, and most traffic does not stray too far from the shoreline. The Bras d'Or Lakes is the most popular destination.

U.S. cruisers usually proceed directly to the St. Peters Canal once clear of mainland Nova Scotia. Vessels originating from the Gulf of St. Lawrence or the St. Lawrence River traditionally pass through the lock at the Canso Canal, then transit Lennox Passage prior to arriving at St. Peters. Cruising vessels bound for Newfoundland or across the Atlantic normally transit the Bras d'Or

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[23] Source: ARA Consulting Group Inc., *Nova Scotia Nature Tourism*, prepared for Tourism Nova Scotia, 1996.

Lakes.[24]

Sport Nova Scotia, a federation of more than 60 sport-governing bodies and sport-related organizations, is a non-profit organization dedicated to the promotion, development and administration of amateur sport in Nova Scotia. Sport Nova Scotia receives funding assistance from the provincial government through the Nova Scotia Sport and Recreation Commission. Member bodies include the Nova Scotia Yachting Association and the Nova Scotia Underwater Council.

The Tourism Industry Association of Nova Scotia (TIANS) has 895 industry members, ranging from small bed and breakfast inns to larger tourism operators, such as cruise and boat charter companies. Through partnership arrangements between industry members, regional tourism associations and all levels of government, TIANS has a number of initiatives to enhance the tourism industry. Programs include industry coalitions, marketing and public relations, product development, information and communications, and sustainable tourism initiatives.

An initial analysis of tourism in the ESSIM study area indicates only nominal activity beyond 12 NM, as most activities occur near the coast. However, it will be necessary to contact recreational fishing charter companies, as well as whale watching companies directly to more fully analyze the recreation and tourism activities in the region. In addition, the activities of the Sable Island Preservation Trust have the potential to include ecotourism.

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[24] Information on the numbers of vessel transits is available at the Canso and St. Peters Canals (both federally operated). Information on the numbers of vessels transiting Lennox Passage is available from the lift-bridge at Louisdale. Information on the number of vessels within the Bras d'or Lakes can be obtained from the lift-bridge at Grand Narrows. Both bridges are provincially operated.

3.0 CANADIAN DOMESTIC REGULATORY FRAMEWORKS

3.1 Description of Principal Regulatory/Advisory Bodies

The Eastern Scotian Shelf Ocean Management Area is managed by over thirty different agencies/departments of different governmental levels. The following is a brief description of the mandates of the key regulatory/advisory bodies as set out by their enabling statutes and/or policy documents. The regulatory purview of these bodies typically affects no more than one or two sectors directly and a number of other sectors indirectly. The advisory role that these bodies exercise typically affects all sectors indirectly. The descriptions identify the directly and indirectly affected sectors and are divided in the following categories:

- joint federal-provincial agencies/departments;
- federal agencies/departments; and
- provincial agencies/departments.

3.1.1 Joint Federal-Provincial Agencies/Departments

3.1.1.1 Canada-Nova Scotia Offshore Petroleum Board (CNSOPB)

Directly Affected Sectors: Oil and Gas
***Indirectly Affected Sectors*:** Marine Conservation and Protection; Fisheries

The Canada-Nova Scotia Offshore Petroleum Board (CNSOPB)[25] is the lead regulatory agency for all petroleum activities and resources in the offshore area adjacent to Nova Scotia. The CNSOPB was created in 1990 as an independent joint agency by the governments of Canada and Nova Scotia following the 1988 enactment of the *Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act* (*C-NSOPRAIA*) and the *Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation (Nova Scotia) Act.*[26]

The CNSOPB is responsible for the following matters:

- enhancement of safe working conditions for offshore operations;
- promotion of the protection of the environment during offshore petroleum activities;
- management and conservation of offshore petroleum resources;
- ensuring compliance with the provisions of the *C-NSOPRAIA* with respect to employment and industrial benefits;
- issuance of licences for exploration and development; and
- resource evaluation, data collection, curation and development.

In carrying out this mandate, the Board operates autonomously in making its decisions, other than those described in the Accord as "fundamental decisions" which are subject to the approval of the federal and provincial energy ministers. Fundamental decisions include issuing a call for bids, issuing interests pursuant to a call for bids, and issuing production licenses, etc.

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[25] For more information on the CNSOPB, see <http://www.cnsopb.ns.ca/>.

[26] S.C. 1988, c. 28, S.N.S. 1987, c. 3, respectively, Schedules I, II, III and IV (hereinafter, the federal statute will be cited in the *Regulatory Overview* and referred to as *C-NSOPRAIA* or the *Accord Act*).

As a joint agency, the CNSOPB consists of five members: two appointed by the federal government, two by the provincial government and a Chairman appointed jointly by the two levels of government. Various managers and staff perform the day-to-day operations of the CNSOPB. The CNSOPB reports jointly to the Minister of Natural Resources at the federal level and the Minister responsible for the Nova Scotia Department of Energy at the provincial level.

3.1.1.2 Canadian Council of Ministers of the Environment (CCME)

Directly Affected Sectors: Marine Conservation and Protection
***Indirectly Affected Sectors*:** Fisheries; Oil and Gas; Marine Transportation

The Canadian Council of Ministers of the Environment (CCME) is an intergovernmental council comprised of the 13 ministers of the environment in the federal, provincial and territorial governments in Canada. The *Canada-wide Accord on Environmental Harmonization*[27] is the framework agreement for the CCME that establishes the common vision, objectives and principles governing the partnership between jurisdictions, and the development and implementation of sub-agreements. To date, Canada-wide sub-agreements include those dealing with Environmental Inspections, Environmental Standards, and Environment Assessment. While it proposes change, CCME does not impose its suggestions on its members since it has no authority to implement or enforce legislation. Each jurisdiction decides whether to adopt CCME proposals.

CCME's objectives include coordinated actions to pursue:

- harmonization of environmental measures, environmental assessment and review procedures in all governments, including policies and procedures, legislation regulations and programs;
- coordinated approaches to the strategic management of inter-jurisdictional environmental matters and emerging environmental issues of national and international significance;
- continued cooperation in developing and maintaining the scientific information base required to support sound environmental decision making;
- establishment of national environmental standards and objectives;
- close cooperation with other ministerial councils and fora, as appropriate, to address environmental issues.

3.1.1.3 Canada-Newfoundland Offshore Petroleum Board (CNOPB)

Directly Affected Sectors: Oil and Gas
***Indirectly Affected Sectors*:** Marine Conservation and Protection; Fisheries

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[27] *A Canada-Wide Accord on Environmental Harmonization*, online at CCME web site: <http://www.ccme.ca/assets/pdf/cws_accord_env_harmonization.pdf> (date accessed: 1 August 2002).

The Canada-Newfoundland Offshore Petroleum Board is a federal-provincial authority established in 1985 to administer the relevant provisions of the Canada-Newfoundland Atlantic Accord Implementation Acts as legislated in the Parliament of Canada and the Legislature of Newfoundland and Labrador.[28]

In carrying out this mandate, the Board operates autonomously in making its decisions, other than those described in the Accord as "fundamental decisions" which are subject to the approval of the federal and provincial energy ministers. Fundamental decisions include issuing a call for bids, issuing interests pursuant to a call for bids, and issuing production licenses, etc.

Board responsibilities include the sale of interest in lands, the issuing of exploration licences, approvals and authorizations pertaining to exploration activities, the declaration of Significant and Commercial discoveries, the issuing of production licences, decisions relating to the commencement, continuation, and suspension of drilling and production, the administration of regulations and the exercise of emergency powers pertaining to safety, environmental protection, and resource conservation.

In addition to its regulatory role, the Board has the responsibility and authority to evaluate and approve a proponent's industrial benefits plan. Every proponent must satisfy the Board that the provisions of the Atlantic Accord Acts are respected as they relate to providing full and fair opportunity to workers and companies in Canada, and particularly in Newfoundland and Labrador, to participate in the supply of goods and services used in the offshore activity.

In short, every aspect of operations in the offshore oil industry is done with the authorization and oversight of the CNOPB.

The Board continuously monitors the activities of offshore operators in the areas of safety, environmental protection, resource management, and industrial benefits. This regulatory role is recognized by industry, and companies make every effort to maintain full compliance at all times. The CNOPB maintains a team of experienced professionals to carry out its regulatory duties and its supervisory mandate.

The Board operates strictly within the authority given to it by the Atlantic Accord legislation, including a responsibility to provide advice and recommendations to both the federal and provincial governments as required. However, it cannot exceed its authority nor alter its mandate. The making or changing of relevant legislation is the sole prerogative of governments. The CNOPB reports to the Government of Canada and the Government of Newfoundland and Labrador through the respective Ministers responsible for Energy.

The geographical area of applicability of the CNOPB within ESSIM is limited to the seabed area east of the Nova Scotia/Newfoundland offshore boundary to the eastern boundary of the ESSIM planning area determined by the 4V/3PS NAFO line bisecting the Laurentian Channel.

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[28] *Canada-Newfoundland Atlantic Accord Implementation Act* 1987, c. 3, available online: <http://laws.justice.gc.ca/en/C-7.5/text.html>.

3.1.2 Federal Agencies/Departments

3.1.2.1 Atlantic Canada Opportunities Agency (ACOA)

Directly Affected Sectors: None directly affected
***Indirectly Affected Sectors*:** Fisheries; Oil and Gas; Marine Transportation; Recreation, Culture and Tourism

The object of the Atlantic Canada Opportunities Agency (ACOA) is to support and promote opportunities for the economic development of Atlantic Canada, including the Eastern Scotian Shelf Oceans Management Area. This is accomplished through policy, program and project development and implementation and by advocating the interests of Atlantic Canada in national economic policy, program and project development and implementation.[29]

3.1.1.2 Atlantic Pilotage Authority

***Directly Affected Sectors*:** Marine Transportation
***Indirectly Affected Sectors*:** Oil and Gas

Pilotage involves directing and controlling the movement of vessels through nearshore and inshore waters unfamiliar to the ship's master or providing navigation advice to the master for this purpose. In Atlantic Canada, pilotage is regulated and administered under the *Pilotage Act* by the Atlantic Pilotage Authority,[30] a Crown Corporation responsible to the Minister of Transport, with responsibilities for licensing and dispatching pilots, negotiating terms and conditions of pilots' employment, and setting tariffs. The Marine Pilotage directorate of the Authority serves as the liaison amongst the pilotage authorities, Transport Canada, industry, other government agencies and pilot associations on matters required to ensure a safe and efficient pilotage service. The directorate guides and participates in the development and approval of policies, standards and regulations for the provision of marine pilotage services to the domestic and international shipping industries.

3.1.1.3 Canada Customs and Revenue Agency (CCRA)[31]

Directly Affected Sectors: None directly affected
***Indirectly Affected Sectors*:** Oil and Gas; Marine Transportation

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[29] See s. 12 of the *Atlantic Canada Opportunities Agency Act*, R.S.C. 1985, c. 41 (4th Supp.). For more details on the Agency's mandate, see its web site at: <http://www.acoa.ca>.

[30] See Act and details online: <http://www.tc.gc.ca/Actsregs/pa-lp/pa.html> and <http://www.atlanticpilotage.com>.

[31] On 12 December 2003, the Canada Border Services Agency (CBSA) was created. CBSA is part of the new portfolio of Public Safety and Emergency Preparedness, which includes emergency preparedness, crisis management, national security, corrections, policing, oversight, crime prevention, as well as border services. The CBSA reports to the Deputy Prime Minister and Minister of Public Safety and Emergency Preparedness. The CBSA brings together all the major players involved in facilitating and managing the movement of goods and people into Canada. It integrates several key functions previously spread among three organizations: the Customs Program from the Canada Customs and Revenue Agency, the Intelligence, Interdiction and Enforcement Program from Citizenship and Immigration Canada, and the Import Inspection at Ports of Entry Program from the Canadian Food Inspection Agency. The CBSA's mandate is to manage the nation's borders by administering and enforcing about 75 domestic laws that govern trade and travel, as well as international agreements and conventions.

The Canada Customs and Revenue Agency (CCRA) provides a full range of services at Canada's international borders. Customs officers process travellers and commercial goods. They also monitor and control the importation of firearms, drugs, and other goods.[32]

In the Eastern Scotian Shelf Ocean Management Area, the CCRA plays an important role in regulating the admission of foreign vessels in Canadian waters. Pursuant to sections 4.(1) and 5 of the *Coasting Trade Act*,[33] and the provisions of the *Customs and Excise Offshore Application Act,*[34] the *Customs Act*,[35] and the *Customs Tariff*,[36] the CCRA, in association with the Canadian Transportation Agency and Transport Canada – Marine Safety, is responsible for administering a temporary admission program for vessels.

3.1.2.4 Canadian Environmental Assessment Agency (CEAA)

Directly Affected Sectors: Oil and Gas; Communications and Submarine Cables; Marine Conservation and Protection
***Indirectly Affected Sectors*:** All other sectors

The Canadian Environmental Assessment Agency (CEAA) is a federal body reporting directly to the Minister of the Environment and operating independently of all federal departments and agencies, including Environment Canada. It was created in 1995 under the *Canadian Environmental Assessment Act*[37] to:

- administer and promote compliance with the federal environmental assessment process;
- provide advice to the Minister of the Environment on the Minister's responsibilities under the *Act*;
- provide opportunities for public participation in the federal environmental assessment process; and
- promote sound environmental assessment practices.[38]

The federal environmental assessment process as set out in the *Act* is only triggered when a "federal authority" performs one or more of the following functions in relation to a "project":

- proposes the project;
- grants some form of financial assistance to the project;
- provides an interest in the land to enable the project to be carried out; or
- exercises a regulatory duty in respect of the project and that regulatory duty is specified in a regulation to the *Act*, such as the *Law List Regulations*.[39]

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[32] See online at CCRA web site: <http://www.ccra-adrc.gc.ca/customs/general/menu-e.html> (date accessed: 23 July 2002).

[33] S.C. 1992, c. 31.

[34] R.S.C. 1985, c. C-53.

[35] R.S.C. 1985, c. 1 (2nd Supp.).

[36] S.C. 1997, c. 36.

[37] S.C. 1992, c. 37, as am. S.C. 1994, c. 46.

[38] For further elaboration, see "The Canadian Environmental Assessment Agency – Description", online at: <http://www.ceaa-acee.gc.ca/0003/index_e.htm> (date accessed: 24 July 2002).

3.1.2.5 Canadian Transportation Agency (CTA)

Directly Affected Sectors: Marine Transportation
Indirectly Affected Sectors: *Oil and Gas*

The Canadian Transportation Agency (CTA) was created by the *Canada Transportation Act*[40] in 1996, assuming the functions of the now-defunct National Transportation Agency.[41] The mandate of the CTA is to: "…administer transportation legislation and government policies to help achieve an efficient and accessible transportation system by education, consultation and essential regulation."[42]

The CTA is responsible for the economic regulation of all modes of transportation under federal jurisdiction in Canada. The responsibilities of the CTA on the marine side include the determination of the status of Canadian ships under the *Coasting Trade Act* (dealing with cabotage issues), the administration of the *Shipping Conferences Exemption Act,* the investigation of complaints regarding tariff regulations set by pilotage authorities under the *Pilotage Act*, and the investigation of complaints by industry regarding Seaway tolls under the *St. Lawrence Seaway Authority Act.*

In association with the Canada Customs and Revenue Agency and Transport Canada, the CTA is responsible for administering a temporary admission program for foreign vessels. The CTA exercises regulatory responsibility for authorizing the use of foreign vessels after determining that no Canadian vessels are available for operations or activities proposed by the Applicant (s. 8(1) of the *Coasting Trade Act*).

3.1.2.6 Canadian Transportation Accident Investigation and Safety Board (TSB)

Directly Affected Sectors: Marine Transportation
Indirectly Affected Sectors: All other sectors

Established by subsection 4(1) of the *Canadian Transportation Accident Investigation and Safety Board Act*,[43] the Canadian Transportation Accident Investigation and Safety Board (TSB), consists of not more than five members appointed by the Governor in Council, at least three of whom shall be full-time members. The TSB is an independent accident investigation group that reports to Parliament through the President of the Queen's Privy Council. The TSB is mandated to analyze and report on safety failures in federally regulated elements of Canada's transportation system.

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[39] S. 5(1), *Canadian Environmental Assessment Act* and *Law List Regulations*, SOR/99-330 and SOR/99-438, as am. 28 July 1999 and 4 November 1999.

[40] S.C. 1996, c. 10.

[41] For more information on the CTA, see online: <http://www.cta-otc.gc.ca>.

[42] See online at CTA web site: <http://www.cta-otc.gc.ca./about-nous/mission_e.html> (date accessed: 24 July 2002).

[43] R.S.C. 1985, c. C-23.4.

The purpose of TSB investigations is to identify safety deficiencies and make recommendations to eliminate or reduce identified transportation problems. On the marine side, the TSB has authority in Canada's internal waters, territorial sea, and the waters above the continental shelf in the case of marine occurrences related to the exploration or exploitation of the continental shelf. A notable example of TSB involvement in the marine transportation sector is the 1992 Report of the Commission of Inquiry into Tanker Safety, which included important recommendations for reducing ship-source oil pollution, such as double-hulled tankers in Canadian waters.

Under subsection 3(2), the TSB is required to investigate "marine occurrences" in Canada; and in any other place, if

- Canada is requested to investigate the marine occurrence by the appropriate authority;
- the marine occurrence involves a ship registered or licensed in Canada; or
- a competent witness to, or person having information concerning a matter that may have contributed to, the marine occurrence arrives or is found at any place in Canada.

Pursuant to subsection 3(3) of the *Act*, the TSB is also required to investigate marine occurrences or pipeline occurrences related to an activity concerning the exploration or exploitation of the continental shelf.

3.1.2.7 Citizenship and Immigration Canada (CIC)[44]

Directly Affected Sectors: None directly affected
Indirectly Affected Sectors: Oil and Gas, Marine Transportation

Citizenship and Immigration Canada (CIC) was created in November 1993 and formally established by subsection 2(1) of the *Department of Citizenship and Immigration Act*[45] in June 1994. Its creation recognized the link between the selection of immigrants and the granting of citizenship.[46] Immigration was previously tied to citizenship under the Department of Citizenship and Immigration in the 1950s; then the economic aspect of immigration was emphasized in the Department of Manpower and Immigration, later known as the Department of Employment and Immigration.

The CIC is involved in the following activities:

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[44] On 12 December 2003, the Canada Border Services Agency (CBSA) was created. CBSA is part of the new portfolio of Public Safety and Emergency Preparedness, which includes emergency preparedness, crisis management, national security, corrections, policing, oversight, crime prevention, as well as border services. The CBSA reports to the Deputy Prime Minister and Minister of Public Safety and Emergency Preparedness. The CBSA brings together all the major players involved in facilitating and managing the movement of goods and people into Canada. It integrates several key functions previously spread among three organizations: the Customs Program from the Canada Customs and Revenue Agency, the Intelligence, Interdiction and Enforcement Program from Citizenship and Immigration Canada, and the Import Inspection at Ports of Entry Program from the Canadian Food Inspection Agency. The CBSA's mandate is to manage the nation's borders by administering and enforcing about 75 domestic laws that govern trade and travel, as well as international agreements and conventions.

[45] *Department of Citizenship and Immigration Act*, S.C. 1994, c. 31.

[46] See online at: <http://www.cic.gc.ca/english/department/index.html> (date accessed: 24 July 2002).

- planning and developing immigration and citizenship policies and programs;
- contributing to the annual immigration plan;
- selecting immigrants with skills to contribute to Canada's economy;
- reuniting families;
- helping protect and resettle refugees;
- admitting visitors, temporary workers and students;
- working with provinces, municipalities and community groups to help newcomers integrate;
- granting citizenship and provide proof or certificates of citizenship;
- encouraging participation in Canadian society;
- promoting understanding of the rights and responsibilities of Canadian citizenship;
- promoting awareness of immigration programs; and
- conducting research on immigration issues.

CIC exercises legislative responsibility for foreign workers in Canada, including Canadian waters, pursuant to s. 5(3) of the *Immigration Act*.[47] An exception to CIC's legislative authority is with respect to seismic operations, performed in Canadian waters beyond 12 NM from the baselines.[48] In general, all other operations are subject to the *Immigration Act* and its related regulations, pursuant to which only Canadian citizens and permanent residents (otherwise known as landed immigrants) may work in Canada without first obtaining an Employment Authorization (EA) from CIC.

Generally, this EA is issued after Human Resources Development Canada (HRDC) has issued an Employment Validation regarding the position for which an EA is sought. There are some jobs that may be exempt from the Employment Validation process. Applicants may contact HRDC, who will liaise with CIC to obtain information with respect to exemptions to the Employment Validation process.

3.1.2.8 Department of Canadian Heritage

Directly Affected Sectors: Marine Conservation and Protection; Recreation, Culture and Tourism
Indirectly Affected Sectors: All other sectors

The Department of Canadian Heritage is responsible for national policies and programs relating to broadcasting, cultural industries, arts, heritage, official languages, Canadian identity, Canadian symbols, exchanges, multiculturalism and sport. Some 20 organizations and agencies comprise the Canadian Heritage portfolio, under the jurisdiction of the Minister of Canadian Heritage. Each contributes, in their area of activity, to the promotion of Canadian culture and the various facets of our identity. These include:

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[47] R.S.C. 1985, c. I-2.

[48] This exception is the result of an internal policy opinion that is not publicly available. Applicants should contact CIC and HRDC for more details on this issue.

- seven departmental agencies: The Canadian Radio-television and Telecommunications Commission (CRTC) (an independent regulatory agency), the National Archives of Canada, the National Battlefields Commission, the National Film Board of Canada, the National Library of Canada, Status of Women Canada, and the Parks Canada Agency;[49] and

- ten Crown corporations: the Canada Council for the Arts, the Canadian Broadcasting Corporation, the Canadian Film Development Corporation (Telefilm Canada), the Canadian Museum of Civilization, the Canadian Museum of Nature, the Canadian Race Relations Foundation, the National Arts Centre, the National Capital Commission, the National Gallery of Canada, and the Canada Science and Technology Museum Corporation.[50]

The Parks Canada Agency is responsible for the planning, establishment, and operation of national parks, national marine conservation areas, and over 100 national historic sites. Parks Canada operates on the principle of representation, and has as its primary goal the establishment of national parks/conservation areas for each of the identified 39 terrestrial natural regions and 29 marine natural regions in Canada.

Pursuant to a change in departmental policy in 1994, Parks Canada replaced its old approach of national marine parks with that of National Marine Conservation Areas (NMCAs) to better reflect the differences between terrestrial parks and the needs for marine area management, including critical marine ecosystem/habitats and submerged cultural resources.[51] The *Canada National Marine Conservation Areas Act* is in force and will provide a legislated basis for moving forward on the establishment of NMCAs.[52]

In addition to NMCAs, Parks Canada contributes to the protection of coastal and ocean environments through the management of 17 national parks on the coast, as well as marine-related national historic sites on both coasts.

3.1.2.9 Foreign Affairs Canada and International Trade Canada

Directly Affected Sectors: International elements of all sectors
Indirectly Affected Sectors**:** All sectors with an international element

Established by the *Department of Foreign Affairs and International Trade Act*,[53] Foreign Affairs Canada is mandated to:

- conduct all diplomatic and consular relations on behalf of Canada;

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[49] As of 13 December 2003, the Parks Canada Agency was transferred to Environment Canada.

[50] See agencies and corporations online at: <http://www.pch.gc.ca/pc-ch/ac-os/index_e.cfm>.

[51] See Department of Canadian Heritage, "Guiding Principles and Operational Policies" (Hull: Minister of Supply & Services Canada, 1994). This document is found online at the Parks Canada web site: <http://www.parcscanada.gc.ca/library/PC_Guiding_Principles/Park1_e.htm> (date accessed: 24 July 2002).

[52] *Canada National Marine Conservation Areas Act*, 2002, c. 18, available online at: <http://laws.justice.gc.ca/en/C-7.3/text.html> (date accessed: 4 December 2003).

[53] *Department of Foreign Affairs and International Trade Act*, R.S.C. 1985, c. E-22.

- conduct all official communication between the Government of Canada and the government of any other country and between the Government of Canada and any international organization;
- conduct and manage international negotiations as they relate to Canada;
- coordinate Canada's economic relations;
- foster the expansion of Canada's international trade;
- coordinate the direction given by the Government of Canada to the heads of Canada's diplomatic and consular missions and to manage these missions;
- administer the foreign service of Canada; and
- foster the development of international law and its application in Canada's external relations.[54]

Generally, FAC is responsible for international relations. Within FAC's legal bureau is the Oceans and Environmental Law Division. This Division played a lead role in the negotiation and ratification of the Law of the Sea Convention. The Division also supports other government departments with legal advice and analysis with respect to Canada's international obligations under oceans, environmental and fisheries-related instruments.

The Environment and Sustainable Development Relations Division (ESR) of Foreign Affairs Canada is responsible for providing policy advice on the international environmental implications of Canada's policies and commitments on oceans issues. ESR also co-ordinates and manages the Government of Canada's participation in various oceans-related international, multilateral and regional fora and often represents the Government of Canada's policy positions on oceans issues in these fora. These include, inter alia, the G8, the World Water Forum, the Arctic Council and the Antarctic Treaty, the World Summit on Sustainable Development, the Commission on Sustainable Development, and the United Nations Informal Consultative Process on Oceans Affairs and the Law of the Sea (UNICPOLOS). All of the work undertaken by ESR is done in consultation with domestic departments and FAC's Oceans Law Section (JLOA).

FAC/ ITCan also issues permits for foreign research and access to resources. Under section 44 of the *Oceans Act*, DFO may request FAC/ ITCan to attach a condition to a consent issued under the *Coasting Trade Act* that a foreign ship must provide DFO with the results of marine scientific research conducted in waters subject to Canadian jurisdiction. Similarly, under section 44, DFO may establish guidelines for use by foreign ships conducting marine scientific research in Canadian waters. The process of issuing permits is handled by FAC/ ITCan in consultation with interested departments and agencies and the permits, with any attached conditions and guidelines, are communicated to the foreign state by diplomatic note.

FAC has substantive powers under section 25 of the *Oceans Act* where the Governor in Council may, on the recommendation of the Minister of Foreign Affairs, make regulations prescribing geographical coordinates from which straight baselines, the territorial sea, the exclusive economic zone, and the outer limits of the continental shelf may be determined.

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[54] See online at: <http://www.dfait-maeci.gc.ca/department/mandate-en.asp>.

FAC is responsible for the *Export and Import Permits Act*,[55] which authorizes the government to control and monitor the transborder flow of specified goods, and for the *Special Economic Measures Act*,[56] which authorizes the government to apply economic sanctions in response to a serious threat to international peace and security.

3.1.2.10 Department of Justice

Directly Affected Sectors: None directly affected
Indirectly Affected Sectors: All sectors indirectly affected

The mandate of the Department of Justice is to:

- support the Minister of Justice in working to ensure that Canada is a just and law-abiding society with an accessible, efficient and fair system of justice;
- provide high-quality legal services and counsel to the government and to client departments and agencies; and
- promote respect for rights and freedoms, the law and the Constitution.[57]

The application of federal laws to the offshore is the responsibility of the Department of Justice, which is, in large part, accomplished by the existing provisions of the *Oceans Act*.[58] There are some areas, however, which require regulation to be effective. These are dealt with in s. 26 of the *Oceans Act*, which provides that the Governor in Council, on the recommendation of the Minister of Justice, may make regulations with respect to the following matters:

- Section 26(1)(a) provides for the prescription of a "work or class of works" as within the definition of marine installation or structure (s. 2).
- Section 26(1)(f) permits the Governor in Council to make regulations "determining or prescribing the method of determining the safety zone" referred to in s. 20(1)(c).
- Section 26(1)(j) allows the government to *exclude* particular federal laws from the otherwise complete application that is found in s. 20(1).
- Section 26(1)(k) allows the government to make federal laws applicable through regulations, to: the EEZ or a part thereof; the continental shelf or a part thereof; to any area beyond the continental shelf, where "that application is made pursuant to an international agreement or arrangement entered into by Canada".
- Section 26(3) provides that, for the purposes of 26(1)(j) and (k), the relevant laws apply as if the areas were part of the territory of Canada (ss.(a)), and "notwithstanding that by their terms their application is limited to Canada" (ss.(b)).

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[55] *Export and Import Permits Act*, R.S.C. 1985, c. E-19.

[56] *Special Economic Measures Act*, 40-41 Elizabeth II, c. 17.

[57] See online at: <http://canada.justice.gc.ca/en/dept/index.html>.

[58] Some federal Acts apply to the offshore by their own terms. Section 24 of the *Oceans Act* provides that nothing in Part I "limits the operation that any Act, rule of law or instrument" has apart from the effect of Part I. Thus, where any Act by its own terms applies to all or part of the offshore areas, it continues to do so despite non-inclusion in the *Oceans Act*.

The application of provincial laws under the *Oceans Act* is only effective if regulations are proclaimed. Section 26 provides the Governor in Council, on the advice of the Minister of Justice, with the power to make such regulations.[59] The key features of this section may be summarized as follows:

- A provincial law may be made applicable "in respect of any part of the area of the sea in which provincial laws apply under section 9 or 21..." (26(1)(b));
- The government may regulate to restrict the application of s. 9(1) or 21(1) "to such laws of a province as are specified in the regulations..." (26(1)(c));
- The government may choose to regulate so as to allow the application of laws related to taxes, royalties and non-living resources, contrary to the general provisions of ss. 9 and 21 (26(1)(d));
- Regulations may exclude any law of the province from the application of s. 9(1) or 21(1) (26(1)(e));
- An *area* "of the sea and a province" may be specified for purposes of subsections 9(1), 21(1) and 22(1) (which deals with court jurisdiction). (26(1)(g))
- By s. 26(1)(j), regulations may exclude provincial laws from the application of s. 21(1) in "respect of any area in or above the continental shelf of Canada or in respect of any specified activity in any such area...". This is a more specific version of s. 26(1)(e), which may give an additional option to exclude in limited areas or by particular activity.
- Section 26(1)(k) provides a power to regulate so as to make provincial laws applicable, "in such circumstances as are specified in the regulations", to the EEZ, the continental shelf and areas beyond the continental shelf where the application is pursuant to an international agreement.
- Section 26(2) permits regulations under the section to be restricted to specific areas or provisions. The reference to areas is already dealt with by s. 26(1)(b).

3.1.2.11 Department of National Defence (DND)

Directly Affected Sectors: Maritime Defence
***Indirectly Affected Sectors*:** Fisheries; Oil and Gas; Marine Transportation; Marine Conservation and Protection

Created by section 3 of the *National Defence Act*,[60] the Department of National Defence (DND) is responsible for the management and direction of the Canadian Forces and for all matters relating to national defence. DND's ship, air and submarine presence offshore allows it to perform a number of activities, including:

- conducting search and rescue missions;
- assisting other government departments with fisheries patrols;
- surveillance, monitoring and control of Canada's coastal and maritime zones;

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[59] The only regulation currently in place under this section relates to the application of provincial laws to the Confederation Bridge. See *Confederation Bridge Area Provincial (P.E.I.) Laws Application Regulations*, SOR/97-375.

[60] *National Defence Act*, R.S.C. 1985, c. N-5, as amended.

- intercepting vessels trafficking in drugs and human cargo, and
- monitoring the ocean environment.[61]

As applied to the oceans, the key DND objective is "to defend Canada by protecting Canada's national territory and jurisdictional areas, helping civil authorities protect and sustain national interests, and assisting in national emergencies." Canada's Maritime Forces, which are comprised of the Navy (Maritime Command) and the Maritime Air Group, are responsible for the surveillance, monitoring and control of Canada's coastal and maritime zones. These activities occur through regular patrols by surface ships, aircraft and submarines, and through regular training exercises and operations with allied forces (e.g., U.S. Navy, NATO Standing Force Atlantic).

The Maritime Forces also provide important support for the oceans-related mandates of other government departments, including fisheries protection and environmental/pollution patrols with DFO, Environment Canada and Transport Canada, policing operations with the RCMP (e.g., counter-drug, anti-smuggling), customs enforcement with Revenue Canada, and illegal immigration enforcement with Customs and Immigration Canada. As the Canadian Forces do not have a mandate to enforce national laws (i.e., against Canadian citizens), coordinated enforcement operations with other government departments are usually conducted under the mandate of the civilian agency.

3.1.2.12 Environment Canada (EC)

Directly Affected Sectors: Fisheries; Oil and Gas; Marine Conservation and Protection; Marine Transportation
***Indirectly Affected Sectors*:** All other sectors

Environment Canada was founded in 1971 and operates under the *Department of the Environment Act, 1985*,[62] Environment Canada's mandate is to preserve and enhance the quality of the natural environment, including water, air and soil quality; conserve Canada's renewable resources, including migratory birds and other non-domestic flora and fauna; conserve and protect Canada's water resources; carry out meteorology; enforce the rules made by the Canada-U.S. International Joint Commission relating to boundary waters; and coordinate environmental policies and programs for the Government of Canada. Environment Canada's ocean-related programs in the Atlantic Region are provided by three branches: Environmental Protection; Environmental Conservation; and Meteorological Services.[63]

Environmental Protection

The Environmental Protection Branch (EPB) is comprised of two divisions, (the Toxics Management Division and the Pollution Prevention Division) and the Office of Enforcement. EPB also maintains four provincial offices (Newfoundland, New Brunswick, Nova Scotia and

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[61] Online at: <http://www.navy.dnd.ca/mspa_home/index_e.asp> (date accessed: 24 July 2002).
[62] *Department of the Environment Act, 1985*, R.S.C. 1985, c. E-10.
[63] Online: <http://www.ec.gc.ca/introec/index_e.htm>.

Prince Edward Island) to integrate EPB and departmental activities with those of provincial governments and other federal agencies.

The Toxics Management Division has four sections. The Shellfish Section is committed to protecting public health through reducing risks associated with the consumption of Atlantic shellfish, and reopening or reducing closed shellfish growing areas. The Emergencies Section has been set up to provide a strong, coordinated framework for all phases of emergency management. The Pollution Control Section is the regulatory arm of EPB, implementing all the regulations under the *Fisheries Act* and the *Canadian Environmental Protection Act* plus the general provisions of the *Fisheries Act*. The Waste Management and Remediation Section is responsible for the management of hazardous wastes, assessment and remediation of contaminated sites and the control of waste disposal at sea. In accordance with the *Canadian Environmental Protection Act,* Environment Canada administers a permit system controlling the disposal of waste and other matter at sea and conducts environmental monitoring at disposal sites.

The Pollution Prevention Division has three sections. The Air and Toxics Issues Section aims to reduce the impact of air pollution and to minimize the adverse effects of hazardous waste practices and the impact of toxic substances on the environment and human/ecosystem health. The Environmental Assessment Section gives advice on projects initiated by other government departments (OGDs) and those referred through provincial assessment processes, and ensures that internal projects satisfy the Canadian Environmental Assessment Act requirements. The Environmental Management and Technology Section supports the development and implementation of plans to minimize generation of wastes and their potential for environmental damage.

The Office of Enforcement ensures that regulated industrial sectors, OGDs, and others are in compliance with departmental legislation (*Canadian Environmental Protection Act, Fisheries Act*, and *Migratory Birds Convention Act*).

Environmental Conservation/Canadian Wildlife Service

The Environmental Conservation Branch/Canadian Wildlife Service (ECB/CWS) focuses on ecosystem health, wildlife conservation, and biodiversity in Canada. Acts administered by ECB/CWS include the *Canada Wildlife Act*, the *Migratory Birds Convention Act*; the *Wild Animal and Plant Protection and Regulation of International and Inter-provincial Trade Act*; and the *Species at Risk Act*. The Branch is also responsible for the Convention on International Trade in Endangered Species and the Convention on Biological Diversity. Environment Canada can establish "national wildlife areas" or "marine wildlife areas" under the *Canada Wildlife Act*, as well as "migratory bird sanctuaries" under the *Migratory Birds Convention Act*.

Community and Departmental Relations Branch

The Community and Departmental Relations Branch facilitates departmental horizontal linkages for program development, manages intergovernmental and external relations, provides strategic advice on broad issues and policies related to sustainable development, provides regional input to national policy and program development, provides advice on the regional implementation of national policy, and provides socio-economic leadership and support by:

- working with program managers to ensure the integration of socio-economic considerations in their decision making,
- analyzing and developing strategies for strengthening the role of market-based instruments in environmental policy, and
- developing strategies, with partners, to encourage environment-economy integration throughout the region.

The Branch is divided into divisions: Sustainable Communities and Ecosystems, Community Programs and Outreach, Policy and Strategic Planning, and Communications.

Meteorological Service of Canada

Through the Meteorological Service of Canada, EC provides expertise and services in weather, climate, air quality, ice, and hydrology. In particular, it provides forecasts, weather warnings, and information on atmospheric, hydrological, sea-state, and ice conditions. In eastern and northern Canada, EC monitors and produces warnings, bulletins, charts, and information on current, forecast, and climatic ice conditions. In the offshore area, the Meteorological Service of Canada is responsible for the following activities:

- operating an offshore weather monitoring station on Sable Island;[64]
- operating an offshore data buoy network to gather weather and sea state information. The Meteorological Weather Centre is responsible for weather and sea-state forecasting, as well as applications of the Oil Spill Tracking Model;
- conducting research in cooperation with Dalhousie University to improve understanding of air-sea interaction, including currents, on the Scotian Shelf through computer modeling; and
- Industry-funded research via ESRF has started a project for 4 years to monitor local air pollutants from offshore platforms, using a monitoring station at Sable Island.

3.1.2.13 Fisheries and Oceans Canada (DFO)

Directly Affected Sectors: Fisheries; Marine Conservation and Protection; Marine Transportation; Marine Science and Technology
***Indirectly Affected Sectors*:** All other sectors

The Department of Fisheries and Oceans (DFO) has, under the *Oceans Act*, the lead oceans role in Canada and is responsible for coordinating federal policies and programs relating to the oceans. DFO is also the lead federal department for fisheries, fish habitat conservation and protection, maritime safety, aquaculture, marine sciences and hydrographic services. As an organization in transition to a Special Operating Agency, the Canadian Coast Guard is also responsible for the provision of marine navigation services (e.g., buoys), communications, icebreaking services, and related marine regulation (Transport Canada has retained responsibility for ship safety). In addition, DFO maintains about 2,100 fishing and recreational harbours and operates nine ocean science institutes across the country.

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[64] The station assets are the property of the Meteorological Service, but are managed by the Sable Island Preservation Trust. The station conducts a number of meteorological programs, but also manages research programs into the magnetic field, transport of pollutants, and air quality monitoring. The station also does the infrastructure support such as aircraft support, electricity, communications, water, sewage, etc. Hence, the weather program is a subset of the activities and is no longer the primary focus.

The DFO vision statement reads as follows:

> Safe, healthy, productive waters and aquatic ecosystems, for the benefit of present and future generations, by maintaining the highest possible standards of:
>
> - marine safety and environmental protection;
> - scientific excellence;
> - conservation and sustainable resource use; and
> - service to Canadians.

To achieve this vision, DFO has identified five long-term priorities and goals:

- managing and protecting fisheries resources;
- contributing to the protection of the marine and freshwater environment;
- understanding the oceans and aquatic resources;
- maintaining marine safety; and
- facilitating maritime commerce and ocean development.

Oceans and Environment Branch

In 1998, the Department underwent an important re-alignment that resulted in the establishment of the Oceans Branch. This structural change has served to raise the oceans mandate of the Department to the level required for the effective implementation of the *Oceans Act*. At the national level, the oceans mandate is executed by the Assistant Deputy Minister, Oceans, through the Oceans Directorate, with national program coordinators for Integrated Management (IM), Marine Protected Areas (MPA), Marine Environmental Quality (MEQ) and a director for Oceans Stewardship. In the Maritimes, the Regional Director, Oceans and Environment, leads oceans programs and activities, primarily through the Oceans and Coastal Management Division.
The 1997 *Oceans Act* is the principal legislative framework for the IM process, as it provides the Minister of Fisheries and Oceans with a mandate to "lead and facilitate the development and implementation of plans for integrated management of all activities or measures in or affecting estuaries, coastal waters and marine waters." As a direct result, the Department developed the national *IM Policy and Operational Framework* to establish a policy framework for regional implementation of Integrated Management initiatives, such as the ESSIM Initiative.

In the Maritimes Region, the Oceans and Environment Branch, encompassing the Habitat Management Division and the Oceans and Coastal Management Division, has taken the lead role in facilitating and guiding the ESSIM Initiative. The environmental and fisheries science expertise in DFO's Science Branch is closely involved in the ESSIM Initiative. Overall, this structure provides an important mix of science and policy, and is indicative of the natural linkages among habitat management, environmental science, and the integrative, ecosystem approaches of the *Oceans Act*. The Oceans and Coastal Management Division is involved in a number of important and inter-related activities under the *Oceans Act*, including the development of:

- IM Program/Plans, on a project, regional and national basis;
- the Sable Gully Marine Protected Area under the National Marine Protected Areas Systems Plan;
- MPA Systems Plan for the Scotian Shelf, Bay of Fundy and the eastern Gulf of St. Lawrence;
- community-based initiatives for coastal and estuarine MPAs;
- integrated coastal zone management and resource mapping initiatives (e.g., Bay of Fundy);
- Canada's Oceans Strategy; and
- the national Marine Environmental Quality (MEQ) program.

The ESSIM process is integrally linked to all of these Oceans and Coastal Management Division Maritimes Region initiatives, as well as providing direct input to national DFO programs, plans and activities under the *Oceans Act*.

Oceans and Coastal Management

The *Oceans Act* has assigned DFO the lead role in the integrated planning and management of all ocean activities. The current management efforts of some 23 federal government departments and agencies, plus provincial interests who currently have some form of jurisdiction over the oceans or its resources are focused to meet the goals of the Strategy in a collaborative effort with industry and the public.

The multi-disciplinary Oceans and Coastal Management Division (OCMD), formally called the Oceans Act Coordination Office, team brings together a unique combination of scientists, fisheries managers, policy analysts and Canadian Coast Guard personnel. This office is responsible for the development of processes, policies and tools to implement the Act.
The Oceans Strategy has three complementary initiatives and programs to achieve its objectives: integrated management plans in estuarine, coastal and marine waters: (Integrated Management is a process and approach to bringing together and collaborating with interested stakeholders to develop coordinated policies and plans for all activities in coastal and marine waters.); the establishment of marine environmental quality guidelines; and the designation of marine protected areas (MPAs). Each of the programs will build upon each other and consider each in their development.

Habitat Management

Habitat Management ensures that there is no loss of fish habitat through its Policy for the Management of Fish Habitat and its objective of producing a net gain of the natural productive capacity of fish habitats for the nation's fisheries resources for the benefit of present and future Canadians. This is accomplished through three goals of conservation, restoration and development of fish habitat, it is the responsibility of Habitat Management to conserve the current productive capacity of fish habitat of Canada's fisheries resources such that fish suitable for human consumption may be produced. This is done through the systematic review development initiatives that have the potential to result in the harmful alteration, disruption or destruction of (HADD) fish habitat, pursuant to subsection 35(2), *Fisheries Act*. The second goal, fish habitat restoration, is achieved through the rehabilitation of the productive capacity of fish habitats. This is often undertaken in cooperation with community groups and resource use organizations and at times, other government agencies. The third goal is that of fish habitat development, and this is accomplished by developing new habitat or by improving existing habitat where the productive habitat can be increased. Like the second goal, habitat development is often carried out with the participation of concerned citizens, resource use organizations and at times other government agencies.

Canadian Coast Guard [65]

The mandate of the Coast Guard comprises of:

- improving marine safety;
- protecting the marine environment;
- supporting understanding of oceans/maritime activities;
- facilitating shared use of the waters; and
- providing marine expertise.

The Coast Guard's activities are divided in the following five areas:

1. Rescue, Safety and Environmental Response:

- marine search and rescue;
- environmental preparedness and response;
- departmental national emergency preparedness; and
- promotion of boating safety through prevention and regulation.

2. Marine Navigation Services:

- national system of aids to navigation;
- waterways development and maintenance services;
- administering an approval process for possible obstructions in navigable waters, pursuant to subsection 5(1) of the *Navigable Waters Protection Act*; and
- protection of the public right to navigation and the marine environment.

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[65] On 12 December 2003, the Prime Minister announced that the Canadian Coast Guard's marine safety policy was being transferred to Transport Canada. The purpose of this change is to provide a single point of contact for mariners dealing with marine navigation policy and related issues. During March-April 2004, the Coast Guard will be transferring responsibilities for pleasure craft safety, marine navigation services, and pollution prevention and response over to Transport Canada. This will mean the transfer of the Office of Boating Safety, the regulatory and policy elements of the Environmental Protection Program, and the Canada Shipping Act Regulatory Reform Project Team. Responsibilities for navigable waters protection, including environmental assessments, are being transferred to Transport Canada.

3. Marine Communication and Traffic Services:

- distress and safety communications monitoring and alerting;
- vessel screening to prevent entry of unsafe vessels into Canadian waters;
- regulation of vessel traffic movements;
- management of integrated system of marine information and public correspondence services;
- optimization of traffic movements and port efficiency; and
- facilitation of industry ship-to-shore communications.

4. Icebreaking Services:

- icebreaking escort;
- channel maintenance;
- flood control;
- harbour breakouts;
- ice routing and information services; and
- coordination of northern community and military re-supply.

5. Fleet Management:

- the acquisition, life-cycle support and national coordination of the Coast Guard vessel and air fleets in support of CG business lines, Fisheries Management, Science and Hydrography, and in support of other government departments.

The Coast Guard also functions as the Receiver of Wreck, which acts as custodian for wrecks in the absence of the rightful owner. The Receiver has a responsibility to attempt to locate the owner within a one-year period and may dispose of the wreck thereafter.

Within the Maritimes Region, Coast Guard program delivery is coordinated through the Regional Operations Centre (ROC) in Dartmouth. The ROC schedules, deploys and tracks resources in accordance with program priorities, as well as providing a focal point for alerting appropriate response agencies to marine emergencies (e.g., Joint Rescue Coordination Centre (JRCC)) and/or coordinating responses to marine incidents. To carry out its responsibilities, the Coast Guard relies heavily on multi-tasking of its operational resources and utilizes a multi-mission design approach in its fleet and air operations.

In consultation with DND, Environment Canada's Atmospheric Environment and Environmental Protection Branches, and offshore operators, the Coast Guard prepared the Sable Island Emergency Contingency Plan in 1994 "to identify both the command/control structures and responsibilities in the event Sable Island is used as an emergency facility." The Plan is implemented and administered by the Director of Marine Programs, Coast Guard (Maritimes Region), who is responsible for permission to land on Sable Island; coordinating all activities on Sable Island; maintaining emergency landing facilities; and coordinating shelter and emergency rations for personnel during emergency situations. At the time of writing, the Plan is scheduled for revision in consultation with the Sable Island Preservation Trust.

Science Branch

Input from Science Branch will be crucial for the effective development and implementation of Integrated Management plans, as well as providing important monitoring and feedback information to decision makers. All components of DFO Science – Fisheries, Environmental, and Oceans Science – will be involved in the ESSIM process. As noted above, strong working linkages will remain between all divisions of Science Branch. The Bedford Institute of Oceanography will provide the centralized science base for the ESSIM Initiative.

Fisheries and Oceans Science

The primary objective of Fisheries and Oceans Science is to provide fisheries management, industry stakeholders, and other clients with a reliable scientific basis and stock assessments for the conservation of marine, anadromous and freshwater fisheries resources. This component is also involved in sustainable aquaculture development, and the provision of scientific/oceanographic information on marine and freshwater ecosystems in support of environment and fish habitat management, integrated resource management, offshore development, climate prediction, marine services, coastal engineering and marine transportation (including defence activities).

Marine Environmental Sciences

The Marine Environmental Sciences Division is responsible for delivery of the Maritimes Region component of DFO's Environmental Science Program. The primary mandate of this program is to provide advice and generate new knowledge on the impacts of human activities on fish and fish habitat. In addition the program is responsible for conducting research on the fate, distribution and biological effects of contaminants in the marine environment. This broad mandate is tackled by a research team with diverse skills located at the Bedford Institute of Oceanography in Dartmouth, Nova Scotia and at the Biological Station in St. Andrews, New Brunswick. The diversity of the research conducted and the scientific advice that is provided is reflected in the large number of themes that are used to categorize our research activities:

- Aquaculture - research and advice for an environmentally sustainable industry
- Contaminants - fate and biological effects of contaminants
- Ecology - developing an understanding of complex ecological processes
- Harmful algal blooms - threats to human fish and human health
- Habitat - in support of the habitat "no net loss" policy
- Marine environmental quality - identifying sensitive indicators
- Oceanography - chemicals as tracers for ocean climate studies
- Oil and gas - potential impacts and spill remediation
- Species at risk - critical habitat identification for recovery plans

Research efforts are highly dependent upon collaborations with other DFO scientists both in the Maritimes and in other Regions, other government departments both federal and provincial, universities, international organisations and programs, and industry and industry organisations.

Canadian Hydrographic Service

The primary objective of the Canadian Hydrographic Service (CHS) is to develop and provide nautical information products for safe and efficient navigation in Canadian and adjacent international waters. One of the key activities for CHS is the modernization of charts for Canada's navigable waters to meet the increasing operational, safety, and business requirements of commercial shipping, the cruise ship industry, recreational boating, the fishing industry, maritime defence, and offshore industry, e.g., oil and gas, dredging. CHS also provides direct support to seabed mapping and classification for a number of federal departments and agencies, and supports the transfer of marine technology for the development of expertise in Canadian industry to become national and international world leaders. An Order-In-Council specifies that territorial limit baselines are to be based on positions of points of land as shown on CHS charts as the official document.[66] CHS is also responsible to chart warfare agent disposal sites on the Scotian Shelf identified by DND.

Fisheries Management

Given the importance of the fisheries to the Maritimes Region, Fisheries Management will have significant involvement in ecosystem-based management through its activities of resource management, licensing, conservation and protection, aboriginal affairs, and international affairs. To meet its primary objective of ensuring the sustainability of Canada's fisheries resources, Fisheries Management is pursuing a number of strategies:

- manage fisheries and fish habitat to conserve and protect stock abundance, restore depleted stocks, and maintain biological diversity through the establishment of Integrated Fisheries Management Plans for all major fisheries;
- respect Aboriginal and treaty rights in the formulation and implementation of fisheries management policies and plans;
- manage fisheries to contribute to an economically and environmentally sustainable, self-reliant, equitable industry, including the application of co-management concepts and arrangements;
- conserve and sustain the utilization of Canada's fisheries resources in marine and inland waters, pursuant to subsection 37(1) of the *Fisheries Act*; and
- advance and protect Canada's sovereignty and international fisheries interests, including transboundary and migratory species.

In the context of Integrated Management, Fisheries Management has pledged to actively participate and support oceans management initiatives in Canada, develop and apply precautionary and ecosystem approaches to fisheries management, as well as contribute through Integrated Fisheries Management Plans.

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[66] Territorial Sea Geographical Coordinates Order, C.R.C., c. 1550.

Small Craft Harbours

The Small Craft Harbours (SCH) component will be integral to the development and implementation of Integrated Management in coastal and estuarine areas. This input will occur primarily through public marine safety and environmental management planning, including expertise in dredging/ocean dumping, coastal development, littoral processes, and environmental impacts on shore systems, sea bottom and biology. SCH works closely with a number of components of the Department, including Hydrography, Coast Guard, Habitat Management, and Aquaculture, as well as Transport Canada (waterlot leasing).

Policy and Economics Branch

The Policy component of the Department will provide important support to the ESSIM process, particularly through its program areas of economic and policy research, development and analysis, strategic planning, legislative and regulatory services, information management and sharing, and intergovernmental liaison and relations.

The Minister of Fisheries and Oceans is required to fulfill a coordinating and facilitating role between the various intergovernmental and intersectoral agencies. In particular, the Minister is required to:

- lead and facilitate the development and implementation of a national strategy for the management of Canadian waters, pursuant to section 29 of the *Oceans Act*;
- lead and facilitate the development and implementation of plans for the integrated management of all activities or measures in or affecting estuaries, coastal waters and marine waters that form part of Canada or in which Canada has sovereign rights under international law. For example, the Eastern Scotian Shelf Integrated Management (ESSIM) Initiative, pursuant to sections 31–33 of the *Oceans Act*;
- lead and coordinate the development and implementation of a national system of marine protected areas (MPAs),[67] pursuant to section 35 of the *Oceans Act*; and
- make recommendations to the Governor in Council to make regulations prescribing MPAs and marine environmental quality requirements and standards, pursuant to sections 35(3) and 52.1 of the *Oceans Act*).[68]

3.1.2.14 Human Resources Development Canada (HRDC)

Directly Affected Sectors: None directly affected.
Indirectly Affected Sectors: Oil and Gas; Marine Transportation; Fisheries

The mandate of Human Resources Development Canada (HRDC) is to enable Canadians to participate fully in the workplace and the community. HRDC fulfills this mandate through delivering a wide variety of programs and services in more than 320 offices nationwide.[69]

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[67] For example, The Gully, a large, deep submarine canyon on the eastern Scotian Shelf near Sable Island was legally designated as a Marine Protected Area under the *Oceans Act* in May 2004.

[68] To date, no recommendations for marine environmental requirements and standards have been made to the Governor in Council.

HRDC's core activities include:

- the administration of the Employment Insurance system, to help Canadians get back to work by providing temporary financial assistance while they upgrade their skills or look for jobs;
- the undertaking of human resources investment, by promoting Employment, Youth, Learning and Literary agendas;
- the strengthening of income security programs; and
- the promoting of labour programs.[70]

As mentioned above under the CIC description, HRDC plays an important role in the regulation of foreign workers in Canada. In particular, HRDC is responsible for issuing an Employment Validation to CIC that advises that no Canadians or landed immigrants are available to perform the job for which an Employment Authorization (EA) is sought. Pursuant to the *Immigration Act*, HRDC's role is to examine the employer, the foreign worker request and to recommend to CIC whether the request for the foreign worker(s) is valid or not.

3.1.2.15 Industry Canada (IC)

Directly Affected Sectors: Communications and Submarine Cables
Indirectly Affected Sectors: Maritime Transport, Oil and Gas, Fisheries

Industry Canada's mission is to foster a growing competitive, knowledge-based Canadian economy. The department works with Canadians in all parts of the country to improve conditions for investment, improve Canada's innovation levels, increase Canada's share of global trade and build a fair, efficient and competitive marketplace. Program areas include developing industry and technology capability, fostering scientific research, setting telecommunications policy, promoting investment and trade, promoting tourism and small business development, and setting rules and services that support the effective operation of the marketplace.[71]

Industry Canada's regulatory role in the offshore is varied. First, it plays an important role with respect to industrial benefits and spin-offs from the various offshore activities. Secondly, pursuant to paragraph 17 of the *Telecommunications Act*,[72] Industry Canada issues licenses for international submarine cables under the International Submarine Cable Licenses Regulations.[73] Thirdly, pursuant to paragraph 5(1)(f) of the *Radiocommunication Act*,[74] Industry Canada Spectrum Management Operations issues approvals of radiocommunication sites in the offshore. Paragraph 5(1) reads as follows:

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[69] See online at: <http://www.hrdc-drhc.gc.ca/common/home.shtml> (date accessed: 25 July 2002).

[70] See online at: <http://www.hrdc-drhc.gc.ca/dept/busplan/2000/core.shtml> (date accessed: 25 July 2002).

[71] See Industry Canada's web site, online: <http://www.ic.gc.ca/cmb/Welcomeic.nsf/ICPages/Department> (date accessed: 24 July 2002).

[72] S.C. 1993, c. 38

[73] Available online: <http://laws.justice.gc.ca/en/T-3.4/SOR-98-488/165418.html> (date accessed: 24 July 2002).

[74] R.S.C. 1985, c. R-2.

> Subject to any regulations made under section 6, the Minister may, taking into account all matters that the Minister considers relevant for ensuring the orderly establishment or modification of radio stations and the orderly development and efficient operation of radiocommunication in Canada,
>
> […] (*f*) approve each site on which radio apparatus, including antenna systems, may be located, and approve the erection of all masts, towers and other antenna-supporting structures.

3.1.2.16 National Energy Board (NEB)

***Directly Affected Sectors*:** Oil and Gas
***Indirectly Affected Sectors*:** All other sectors

The National Energy Board (NEB) is a federal agency under the Minister of Natural Resources with regulatory powers under the *National Energy Board Act*, the *Canada Oil and Gas Operations Act* and the *Canada Petroleum Resources Act* to authorize the exportation of oil, natural gas and electricity; import natural gas; and certify inter-provincial and international pipelines and power lines. The NEB also regulates for gas plant design, safety matters, and the setting of tolls and tariffs for oil and gas pipelines.[75] The *National Energy Board Act* permits the construction and operation of international power lines under s. 58.11 and permits the exportation of electricity under s. 119.03. The construction and operation of pipelines is authorized under Part III and the export of oil and gas is authorized under Part VI, Division I of the Act.

Furthermore, the NEB is responsible for environmental issues relating to the regulation of gas, oil, petroleum products pipelines, energy exports, international power lines, and frontier oil and gas. The NEB is also subject to the requirements of *CEAA*. Submarine pipelines are subject to a comprehensive study level of environmental assessment pursuant to the *CEAA*. At any time during an assessment, the Responsible Authority may request that the Minister of the Environment refer the project to a review panel.

With respect to offshore oil and gas exploration and production, the NEB regulatory responsibilities include: offshore pipelines from the point at which petroleum leaves the production platform to the processing plant; onshore processing plants where the plant and gathering pipeline are owned by the same party;[76] and inter-jurisdictional pipelines within Canada and internationally.

3.1.2.17 National Research Council (NRC)

***Directly Affected Sectors*:** Marine Science and Technology
***Indirectly Affected Sectors*:** All others could be indirectly affected

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[75] See online at: <http://www.neb.gc.ca/about/index_e.htm> (date accessed: 26 July 2002).

[76] For example, the NEB regulates the plant and the pipeline of the Sable Energy project, as Sable Offshore Energy Inc. owns both.

Created by the *National Research Council Act*,[77] the National Research Council, (NRC) is Canada's premier science and technology research organization. The NRC is a leader in scientific and technical research, the diffusion of technology and the dissemination of scientific and technical information by working in partnership with innovative companies, universities and research organizations worldwide.[78] NRC's Institute for Marine Biosciences in Halifax conducts research in the life sciences, with an overall orientation towards marine biotechnology. The NRC's Institute for Marine Dynamics in St. John's employs numerical, model and full-scale studies to predict or evaluate the performance of a range of systems in the ocean environment.

3.1.2.18 Natural Resources Canada (NRCan)

Directly Affected Sectors: Oil and Gas
***Indirectly Affected Sectors*:** Fisheries; Marine Conservation and Protection; Communications and Submarine Cables

Natural Resources Canada (NRCan) is a scientific and economic department concerned primarily with Canada's landmass and the sustainable development and responsible use of Canada's mineral, energy, and forest resources. NRCan is responsible for energy, minerals and metals, forests and earth sciences in the following four areas:

- conducting leading-edge science and technology research;
- building and maintaining a national knowledge infrastructure on Canada's land and resources;
- ensuring that federal policies and regulations on issues such as the environment, trade, the economy, land, science and technology enhance the natural resources sector's contribution to the economy; and
- promoting Canada's international interests with respect to natural resources.[79]

Oceans-related activities for NRCan occur through the following departmental program areas.

Energy Sector

- *Frontier Lands Management* oversees the Department's mandate for offshore oil and gas resources on Canada's east and west coasts, the Gulf of St. Lawrence, and Hudson Bay, excluding Accord areas, i.e., Newfoundland and Nova Scotia. NRCan develops legislation and regulations for safety, environmental protection, and resource conservation. Implementation of the legislation and regulations is effected by the Canada-Nova Scotia and Canada-Newfoundland Boards in their Accord areas, and by the National Energy Board in all other frontier areas. Frontier Lands Management also manages the $300 million Canada-Newfoundland Offshore Development Fund and the $200 million Canada-Nova Scotia Fund for developing infrastructure and research for oil and gas development.

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[77] *National Research Council Act*, R.S.C. 1985, c. N-15, at section 3.

[78] For details on the NRC's mandate, see its web site: <http://www.nrc.ca/corporate/english/index.html> (date accessed: 26 July 2002).

[79] See online: <http://www.nrcan.gc.ca/inter/aboutus_e.html> (date accessed 26 July 2002).

The Minister of Natural Resources shares a number of regulatory responsibilities with the Minister of the Nova Scotia Energy Department. In particular, along with Nova Scotia's Energy Minister, the Minister of Natural Resources Canada is responsible for approving the "fundamental decisions" made by the CNSOPB pursuant to the *C-NSOPRAIA*.

- The *Office of Energy Research and Development* manages the federal government's interdepartmental Program of Energy Research and Development (PERD). A number of PERD projects are directly related to the oceans, as exemplified by support to offshore oil and gas exploration and development in the Beaufort Sea and on the east coast. PERD funds are used in cooperation with industry to develop required information and regulatory infrastructures for oil and gas development, including offshore geotechnics, ice/structure interaction and safety, environmental conditions and forecasting, and pipeline and marine transportation of oil and gas. PERD also support work on climate change and greenhouse gases, including changes to sea ice and marine weather conditions, and the disposal and fate of CO_2 in the oceans.

Minerals and Metals Sector

- The Minerals and Metal Sector focuses on the economic development of Canada's mineral resources through the development of federal policies on sustainable mineral development and environmental and land-use issues. It is responsible for the administration of all federally owned mineral rights in the provinces, and non-fuel offshore mineral interests south of 60° N latitude. Sector activities occur in three main areas: ownership (e.g., provinces, First Nations); environmental assessment and protection (e.g., protected areas and MEQ); and economics (resource assessments, revenue sharing).

The Minister is also responsible for the development of a national energy policy and a national minerals and metals policy.

Earth Sciences Sector

Under the Earth Sciences Sector of NRCan, the Geological Survey of Canada (GSC) is the principal source of marine geoscience information for territorial claims, marine non-renewable resources, and environmental management. The GSC fulfils a requirement of the *Resources and Technical Surveys Act* of 1949 and 1994 that the Minister of Natural Resources "make a full and scientific examination of the geological structure and mineralogy of Canada."

GSC supplies the fundamental national geoscience knowledge base required to support effective mineral and hydrocarbon exploration and development across Canada, to provide the geological basis necessary to understand and address health, safety and environmental issues, and to advocate the interests of Canadian geoscience at the international level. GSC's mandate is:

> To provide Canada with a comprehensive geoscience knowledge base contributing to economic development, public safety and environmental

protection by acquiring, interpreting and disseminating geoscience information concerning Canada's landmass, including the offshore.[80]

GSC's work is carried out by the Sedimentary and Marine Geoscience Branch and the Minerals and Regional Geoscience Branch. GSC programs related to the oceans are delivered through the following activities:

- *Marine Regional Geoscience* provides baseline geological and geophysical data at a number of different scales for territorial definition, resource identification, and environmental management. Coastal mapping is done in support of coastal development and resource use, coastal zone management, and coastal protection activities. Geological mapping from the nearshore to the deep seabed directly supports all types of offshore activities, including environmental and resource assessment, military operations, scientific research and knowledge of Canada's offshore margins, shelves and basins, as well as territorial and regulatory issues, e.g., the limits of the continental shelf under Article 76 of the United Nations Convention on the Law of the Sea, 1982.

- *Marine Resources Geoscience* provides identification and assessments of offshore non-renewable resources, such as seabed minerals (e.g., aggregates and placer deposits), and sub-seafloor oil, gas and gas-hydrates. GSC work in this area provides important input for industry, oceans science, as well as regulatory planning requirements. In the Eastern Scotian Shelf area, GSC is integrally involved in the identification, mapping, and planning of future commercial seabed mining.

- *Marine Environmental Geoscience* provides knowledge of the geoscience component of environmental systems for sustainable development. Within this program area, GSC operates with two distinct mandates: the understanding of natural geological processes and constraints to coastal and offshore development; and the evaluation of potential or previous development impacts on natural environmental systems. This work involves the study of the distribution, magnitude, and frequency of marine geological hazards, including seabed erosion, fluid escape, submarine landsliding, and earthquakes (especially on the west coast). Understanding of coastal and seafloor processes is critical for all types of ocean construction and developments, ranging from offshore platforms, undersea communications cables, to port facilities. The Marine Environmental Geoscience program also provides input to the interdepartmental Marine Environmental Quality Initiative Action Plan.

Geomatics Canada

Geomatics Canada provides geographical information on Canada's landmass through surveys, maps and remote sensing applications, in support of national sovereignty, defence, environmental, and social-economic development activities. Within Geomatics Canada, the Geodetic Survey Group provides technical support for geomatic applications; Legal Surveys maintains the Canada Lands Survey Record, which provides a legal survey framework for property rights in the offshore for mineral and energy resource development; the International Boundary Commission oversees the international boundary with the United States; and the Canada Centre for Remote Sensing provides support to remote sensing technology development and activities.

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[80] See online at: <http://www.nrcan.gc.ca/gsc/about_e.html> (date accessed: 26 July 2002).

3.1.2.19 Royal Canadian Mounted Police (RCMP)[81]

Directly Affected Sectors: National Defence
***Indirectly Affected Sectors*:** All other sectors

The Royal Canadian Mounted Police (RCMP) is organized under the authority of the *Royal Canadian Mounted Police Act.*[82] In accordance with the *Act*, the RCMP is the Canadian national police service headed by the Commissioner, who, under the direction of the Solicitor General, has the control and management of the Force and all matters connected therewith. The RCMP is unique in the world since it is a national, federal, provincial and municipal policing body. It provides a total federal policing service to all Canadians and policing services under contract to the three territories, eight provinces (except Ontario and Quebec), approximately 198 municipalities and, under 172 individual agreements, to 192 First Nations communities.[83]

The RCMP enforces throughout Canada laws made by, or under, the authority of the Canadian Parliament. Administration of justice within the provinces, including enforcement of the Criminal Code, is part of the power and duty delegated to the provincial governments. In 1996, the RCMP began moving towards a more regional management system under the direction of deputy commissioners. Four regions were developed: Pacific, Northwestern, Central and Atlantic. This change ensures there is greater grass-roots involvement in decision-making and also allows the RCMP to invest more resources into frontline services.

Under the Commissioner, operational direction is provided by several deputy commissioners: a Deputy Commissioner in charge of Atlantic Region; a Deputy Commissioner in charge of Central Region; a Deputy Commissioner in charge of Northwestern Region; a Deputy Commissioner in charge of Pacific Region; a Deputy Commissioner, Operations; a Deputy Commissioner, National Police Services and Infrastructure; a Deputy Commissioner, Corporate

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[81] On 12 December 2004, the Prime Minister announced the creation of the new portfolio of Public Safety and Emergency Preparedness. It includes emergency preparedness, crisis management, national security, corrections, policing, oversight, crime prevention and border functions. The Public Safety and Emergency Preparedness Portfolio is responsible for protecting Canadians and helping to maintain a peaceful and safe society. The Portfolio consists of the Department, and six agencies: Royal Canadian Mounted Police (RCMP), Canadian Security Intelligence Service (CSIS), Correctional Service of Canada (CSC), National Parole Board (NPB), Canada Firearms Centre, and Canada Border Services Agency. There are also three independent review bodies that ensure accountability and respect for the rule of law, and two statutory review bodies of CSIS. The Department's role within the Portfolio is to support the Minister in giving effective direction to the agencies responsible for policing and law enforcement, national security, corrections and conditional release. The Portfolio works in close collaboration with Justice Canada, which has primary responsibility for federal criminal justice policy. The Portfolio also works closely with other federal departments, provincial and territorial governments, as well as the voluntary and private sectors.

[82] *Royal Canadian Mounted Police Act,* R.S.C. 1985, c. R-10.

[83] See online at; <http://www.rcmp-grc.gc.ca/about/index_e.htm> (date accessed: 26 July 2002).

Management and Comptrollership; and a Deputy Commissioner, Strategic Direction. The first four Deputies are located respectively in Halifax, Ottawa, Regina and Vancouver.[84]

3.1.2.20 Transport Canada (TC)[85]

Directly Affected Sectors: Marine Transportation
Indirectly Affected Sectors**:** Oil and Gas

Pursuant to the provisions of the *Canada Shipping Act*, Transport Canada – Marine Safety is responsible for certifying the safety of domestic vessels, foreign ships, ship source pollution, certification and training of personnel, cargo, occupational safety and health and ship registration.[86]

Transport Canada maintains a number of important services and programs related to Canada's oceans. These include domestic and international shipping issues, the coasting trade regime, port policy, pilotage, ferry services, competitiveness, insurance and liability issues, economic regulations, and international marine activities. Transport Canada oversees the transportation and safety of containers transiting through Canadian Ports. In addition to the national headquarters in Ottawa, TC operates through five regional offices. Regional offices for Marine Safety and Harbours and Ports are located in Dartmouth.

Transport Canada has assumed responsibility for the Navigable Waters Protection Program from the Department of Fisheries and Oceans (Canadian Coast Guard). The Navigable Waters Protection Program ensures the protection of the public right to navigation and the protection of the environment through the administration of the *Navigable Waters Protection Act* (NWPA). Responsibilities include: approval of any works built or placed in, on, over, under, through or across navigable water in Canada prior to construction of the work(s); removal of obstructions to navigation including unauthorized works or other obstructions such as sunken or wrecked vessels; and regulating the provision and maintenance of lights, markers, etc. required for safe navigation during and/or on completion of the construction of certain works.

Transport Canada programs and activities of particular importance to IM are described below.

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[84] See online at: <http://www.rcmp-grc.gc.ca/html/organiz.htm> (date accessed: 26 July 2002).

[85] On 12 December 2003, the Prime Minister announced that the Canadian Coast Guard's marine safety policy was being transferred to Transport Canada. The purpose of this change is to provide a single point of contact for mariners dealing with marine navigation policy and related issues. During March-April 2004, the Coast Guard will be transferring responsibilities for pleasure craft safety, marine navigation services, and pollution prevention and response over to Transport Canada. This will mean the transfer of the Office of Boating Safety, the regulatory and policy elements of the Environmental Protection Program, and the Canada Shipping Act Regulatory Reform Project Team. Responsibilities for navigable waters protection, including environmental assessments, are being transferred to Transport Canada.

[86] See online at: <http://www.tc.gc.ca/atl/en/menu.htm> (date accessed: 26 July 2002).

Marine Safety and Regulation

Transport Canada is responsible for ship safety and ship-source pollution prevention for all commercial and fishing vessels in Canada's maritime zones. The role of TC in marine safety and regulation includes the following activities:

- development, application and enforcement of legislation, regulations and safety standards (both national and international in scope) for the design, construction, operation and maintenance of commercial ships, mobile offshore drilling units, and other special purpose vessels;
- qualification, training and examination of officers and crews of commercial vessels;
- prevention of ship-source pollution, and the maintenance of the Ship-Source Oil Pollution Fund (SOPF) to pay claims for pollution damage and preventive measures related to the discharge of oil from ships in Canadian waters;
- marine occupation health and safety issues under the *Canada Shipping Act* and the *Labour Code*;
- maintenance of a registry of Canadian ships, and licensing of small commercial vessels;
- overseeing marine pilotage, including compulsory pilotage zones, the identification of ship classes subject to compulsory pilotage, as well as licensing and certification;
- enforcement of national and international ship safety standards through Port State Control (PSC) and International Maritime Organization (IMO) regimes. Canada is a full participant in regional PSC arrangements in Europe (Paris MOU) and the Asia-Pacific region (Tokyo MOU), and an observer/supporter of PSC in the Caribbean. These international agreements provide specific regulations and protocols regarding inspection rates and procedures, information sharing, and sanctions;
- overseeing the transportation of dangerous goods through Canadian waters, in terms of both the prevention and the minimization of the consequences of accidents and incidents. The Canadian Transport Emergency Centre (CANUTEC) is an important preventative program that provides bilingual 24-hour chemical and regulatory information services.

Ports and Ferry Service

- Under the 1995 National Marine Policy, Transport Canada is moving away from a direct operating role in Canada's ports. The passage of the *Canada Marine Act*[87] in 1998 provides the legislative basis for the TC policy regarding Canada's ports. In March 1999, the new National Ports System was put into place with the replacement of the Port Corporations by the Port Authorities. In the ESSIM area, for example, the Halifax Harbour is now managed and operated by the Halifax Port Authority.

- TC subsidizes private ferry services in Canada, including Marine Atlantic Inc., which operates marine ferry services throughout Atlantic Canada (e.g., Nova Scotia – Newfoundland).

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[87] *Canada Marine Act*, S.C. 1998, c. 10.

Transport Canada – Marine Safety exercises general regulatory authority with respect to safety issues for Canadian as well as foreign flagged vessels. However, this authority does not extend to oil and gas installations, drilling platforms, or accommodation installations.

The use of foreign-flagged vessels entails a regulatory process, known as the "temporary admission program for vessels," administered by the Canadian Customs and Revenue Agency, Canadian Transportation Agency, and Transport Canada – Marine Safety (see above for the functions of CCRA and CTA). Pursuant to the temporary admission program for vessels, Transport Canada must examine and approve the foreign flagged for marine safety before it may be brought in for work in Canadian waters.

Through the Security and Emergency Preparedness Directorate, Transport Canada has the lead for marine security and responsibility to implement the International Ship and Port Facility Security (ISPS) Code in Canada (see section 4.3.6.4 below).

3.1.3 Provincial Agencies/Departments

3.1.3.1 Nova Scotia Department of Agriculture and Fisheries

***Directly Affected Sectors*:** Fisheries
***Indirectly Affected Sectors*:** Oil and Gas

Governed by the provisions of the *Fisheries and Coastal Resources Act*,[88] the Nova Scotia Department of Agriculture and Fisheries is mandated to:

> foster prosperous and sustainable agriculture and fisheries industries through the delivery of quality public services for the betterment of rural and coastal communities and of all Nova Scotians.[89]

The Department is divided into the following branches and divisions:

- Agriculture services;
- Fisheries and Aquaculture Services;
- Legislation and Compliance Services; and
- Industry Development and Business Services.[90]

The Nova Scotia Department of Fisheries and Aquaculture focuses on a number of program areas, including the following activities:

- Representation of the Nova Scotia fishing industry at levels of management consultations;
- Marketing support and services for Nova Scotia fish processors;
- Licensing and leases for aquaculture, fish processing, fish buying, and the marine plant industries;

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[88] S.N.S. 1996, c. 25.

[89] See online at: <http://www.gov.ns.ca/nsaf/department/mission.htm> (date accessed: 26 July 2002).

[90] See online at: <http://www.gov.ns.ca/nsaf/department/divisions/> (date accessed: 26 July 2002).

- Management of the non-migratory sport fishery through inland fisheries programs;
- Training and technical assistance for all segments of the Nova Scotia fishing industry; and
- Enforcement of provincial fisheries act and regulations.

3.1.3.2 Nova Scotia Department of Education

***Directly Affected Sectors*:** Recreation, Culture and Tourism
***Indirectly Affected Sectors*:** Others are unlikely to be affected

The mandate of the Department of Education spans the public school system, community colleges, universities, a comprehensive system of adult learning, public libraries, and other programs and services to support lifelong learning.[91] The Minister of Education is also responsible for designating any land within the Province, including land covered with water that has outstanding archaeological, historical or palaeontological significance as a protected site, pursuant to the *Special Places Protection Act*.[92]

3.1.3.3 Nova Scotia Department of Energy

***Directly Affected Sectors*:** Oil and Gas
***Indirectly Affected Sectors*:** All other sectors

Pursuant to paragraph 64(b)(2) of the *Public Service Act*,[93] the Nova Scotia Petroleum Directorate was established in 1997 by Order in Council 97-719 to consolidate the petroleum related activities of the government of Nova Scotia as assigned to the Nova Scotia Department of Natural Resources. In 2002, the Department of Energy was formed by bringing together the energy responsibilities formerly held by the Petroleum Directorate and the Department of Natural Resources. The Energy Department has direct responsibility for economic development and analysis, regulatory and environmental processes, transportation and utilization, education, training, and benefits, as well as administering the offshore royalty regime under the *Offshore Petroleum Royalty Act*[94] and the Offshore Petroleum Royalty Regulations.[95]

In addition, the Energy Department is mandated to work with industry on strategies for employment, gas access, pricing, marketing, and safety. The Energy Department also assists in the licensing of onshore and offshore exploration and production activity, as well as legislative matters.

The Minister Responsible for the Energy Department shares a number of regulatory responsibilities with the Minister of Natural Resources Canada. In particular, along with the Minister of Natural Resources Canada, she/he is responsible for approving the "fundamental decisions" made by the CNSOPB pursuant to the *C-NSOPRAIA*.

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[91] See Department of Education web site: online at: <http://www.ednet.ns.ca/dept/> (date accessed: 26 July 2002).
[92] *Special Places Protection Act*, R.S.N.S. 1989, c. 438 at s. 7(1).
[93] R.S. 1989, c. 376.
[94] *Offshore Petroleum Royalty Act*, S.N.S. 1987, c. 9.
[95] Offshore Petroleum Royalty Regulations, N.S. Reg. 71/99.

3.1.3.4 Nova Scotia Department of Environment and Labour (NS DEL)

***Directly Affected Sectors*:** Marine Conservation and Protection
***Indirectly Affected Sectors*:** Oil and Gas

The Department of Environment and Labour (NS DEL) officially came into existence on October 1, 2000. The Department consists of:

- the former Department of the Environment;
- the former Department of Labour;
- the financial Institutions Section of the former Department of Business and Consumer Services;
- the Pension Regulation Section of the Department of Finance;
- Alcohol and Gaming Authority;
- the Nova Scotia Securities Commission;
- the Nova Scotia Utility and Review Board;
- the Workers' Compensation Board of Nova Scotia; and
- all Agencies, Boards and Commissions (14) who formerly reported to either the Minister of the Environment or Minister of Labour will also report to the Minister of the Department of Environment and Labour.[96]

This merger has resulted in a two-fold mandate for the NS DEL. First, NS DEL is required to protect, manage and promote a healthy environment onshore from the high tide mark landwards. The second component of NS DEL's mandate is to promote and protect employment rights and the safety of people and property in the province of Nova Scotia, including the offshore jurisdiction.

3.1.3.5 Nova Scotia Department of Natural Resources (NS DNR)

***Directly Affected Sectors*:** Communications and Submarine Cables
***Indirectly Affected Sectors*:** Fisheries; Oil and Gas; Marine Conservation and Protection; Recreation, Culture and Tourism

The Nova Scotia Department of Natural Resources' mandate offshore of Nova Scotia is to:

- achieve sound natural resources stewardship and sustainable development;
- maintain the diversity of the province's natural environment;
- maintain the economic base for jobs and incomes in Nova Scotia;
- improve the quality of life for Nova Scotians; and
- ensure the effective use of our human and financial resources.[97]

The Department performs a number of functions related to the oceans:

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[96] See online at: <http://www.gov.ns.ca/enla/about.htm> (date accessed: 26 July 2002).
[97] For more information, consult the NS DNR's web site at: <http://www.gov.ns.ca/natr>.

- oversight for applications for coastal development and construction (e.g., wharves, moorings, causeways, infills) in coastal and inland waters on Crown land under the *Crown Lands Act* and *Beaches Act*;
- protection of beach and dune systems;
- protection, conservation and management of natural sites, wetland, coastal and marsh areas for wildlife habitat and biodiversity protection;
- study and monitoring of coastal wildlife populations for conservation and sustainable use;
- involvement in the protection and management of Sable Island;
- maintenance of special management zones along watercourses, as well as designated rivers under the Canadian Heritage Rivers Program;
- overseeing of tidal power activities in the province; and
- regulation, evaluation, and promotion of offshore and near-coastal mineral and petroleum resources (and resolution of related jurisdictional issues).

3.1.3.6 Nova Scotia Office of Aboriginal Affairs

***Directly Affected Sectors*:** None directly affected
***Indirectly Affected Sectors*:** Fisheries; Oil and Gas

The Office of Aboriginal Affairs in Nova Scotia is responsible for coordinating the province's approach to aboriginal issues. Its mandate includes discussions and negotiations with the Government of Canada and organizations representing aboriginal communities.[98] Strictly speaking, the Office does not exercise regulatory functions in the Eastern Scotian Shelf Oceans Management Area. However, as recent court cases initiated by aboriginal groups include claims to the offshore, the Office is currently in discussions that may affect oil and gas activities in the offshore.[99]

3.1.3.7 Nova Scotia Innovation Corporation (In*NOVA*corp)

***Directly Affected Sectors*:** Marine Science and Technology
***Indirectly Affected Sectors*:** All others could be indirectly affected

Established in 1996, In*NOVA*corp's vision is to create value through technology commercialization. Its mission is to provide resources that enable technology-based Nova Scotia firms to compete successfully for business anywhere in the world. In*NOVA*corp provides a leadership role in the strategic direction to promote innovation and adopt and commercialize new products and technologies. In*NOVA*corp continues to make a significant difference in the technology sector and the broader economic growth of Nova Scotia by accelerating technology-based companies through the commercialization process.

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[98] For more information on the Office of Aboriginal Affairs, see online: <http://www.gov.ns.ca/abor>.

[99] See: *Union of Nova Scotia Indians, Confederacy of Mainland Mi'kmaq and Assembly of Nova Scotia Mi'kmaq Chiefs* v. *AGNS, the Honourable Lieutenant Governor of Nova Scotia, MacAskill: Kenneth (Honourable), AG Canada, Maritime and Northeast Pipeline Management Limited and Maritime and Northeast Pipeline Limited Partnership* (SH No. 154599, Application before the Nova Scotia Supreme Court) and *Union of Nova Scotia Indians, Confederacy of Mainland Mi'kmaq and Assembly of Nova Scotia Mi'kmaq Chiefs* v. *AGNS, Lieutenant Governor of Nova Scotia, Minister of Natural Resources, Maritimes and Northeast Pipeline Management Limited and Maritimes and Northeast Pipeline Limited Partnership*, (SH No. 159458: Action before the Nova Scotia Supreme Court).

3.1.3.8 Nova Scotia Department of Tourism and Culture

Directly Affected Sectors: Recreation, Culture and Tourism; Marine Conservation and Protection.
***Indirectly Affected Sectors*:** All other sectors

The mission of the Department of Tourism and Culture is to champion the development, preservation and promotion of tourism, culture, heritage and nature to stimulate economic growth and enhance quality of life for the benefit of all Nova Scotians.[100]

Nova Scotia Museum

The Nova Scotia Museum is part of the provincial Department of Tourism and Culture and operates under the *Nova Scotia Museum Act*.[101] In 1980, the NSM was given responsibility for significant natural, palaeontological and archaeological sites (including shipwrecks) through the *Special Places Protection Act*. Responsibility for natural sites has since moved to the Department of Natural Resources;[102] the other sites remain with the NSM.

3.1.3.9 Nova Scotia Utility and Review Board (UARB)

Directly Affected Sectors: Oil and Gas
***Indirectly Affected Sectors*:** Fisheries

The Nova Scotia Utility and Review Board (UARB) was created under the *Utility and Review Board Act*[103] in 1992. By a 1999 Order in Council,[104] the UARB has been mandated to assume the duties of the Energy Resource Conservation Board (formerly known as the Energy and Mineral Resource Conservation Board) under the *Pipeline Act*,[105] and its associated regulations.[106] In 1997, the UARB was identified in the *Gas Distribution Act*[107] and its associated regulations.[108]

Although the UARB is primarily concerned with and the regulation of natural gas distribution and pipelines, it regulates activities in the offshore as well. In particular, the regulatory functions the UARB exercises under the *Pipeline Act* include the granting of permits to construct a pipeline (s. 9) and the granting of a licence to operate a pipeline (ss. 11 and 13) on Nova Scotia lands. In the Act, "Nova Scotia lands" is defined as the land mass of Nova Scotia including Sable Island, and includes the seabed and subsoil off the shore of the land mass of Nova Scotia, the seabed and subsoil of the Continental shelf and slope, and the seabed and subsoil seaward from the Continental shelf and slope to the limit of exploitability (ss. 2(1) and (2)).

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[100] For more details on the Department of Tourism and Culture's mandate, see its web site at: <http://www.gov.ns.ca/dtc/> (date accessed: 31 July 2002).

[101] R.S.N.S. 1989, c. 315.

[102] For more on the Nova Scotia Museum's mandate, see online: <http://museum.gov.ns.ca>.

[103] S.N.S. 1992, c. 11, as am. S.N.S. 1995, c. 7 and S.N.S. 1998, c. 18.

[104] See Order in Council 1999/372.

[105] R.S.N.S. 1989, c. 345.

[106] See: Land Acquisition Regulations, N.S. Reg. 67/98; Pipeline Benefits Plan Regulations, N.S. Reg. 151/97; Pipeline Regulations (Nova Scotia), N.S. Reg. 66/98; and Gas Plant Facility Regulations, N.S. Reg. 22/2000.

[107] S.N.S. 1997, c. 4.

[108] Board Gas Distribution Regulations (Nova Scotia), N.S. Reg. 93/98; and Gas Distribution Regulations (Nova Scotia) N.S. Reg. 31/99.

Other functions involve enforcement under the *Pipeline Act* and its associated regulations, the granting of permits and licences under the Gas Plant Facilities Regulations and the *Gas Distribution Act*.

3.1.3.10 Workers' Compensation Board of Nova Scotia (WCB)

***Directly Affected Sectors*:** None are directly affected
***Indirectly Affected Sectors*:** All may be indirectly affected

The Workers' Compensation Board (WCB) is an employer-funded no fault insurance system that promotes safe and healthy work places, protects employers from the full cost of accidents at their workplace and provides return-to-work programs and fair compensation to injured workers and their dependants.[109] Under the *Workers' Compensation Act*, the Board is mandated to provide workplace insurance and to promote health and safety in the workplace.[110] Some operators providing employment in the Nova Scotia offshore area may be required to register with the Board and should contact the Board directly for information on registration requirements.

3.1.3.11 Newfoundland and Labrador Department of Mines and Energy

The Department's mandate is established under the Department of Mines and Energy Notice of the Executive Council Act,[111] which states that the Minister is responsible for the supervision, control and direction of all matters relating to: mines, minerals, quarries, quarry materials and beaches; petroleum resources, including offshore petroleum resources; royalties and associated matters, within or outside the province; energy, including all electrical power; and the development, monitoring, supervision, assistance or other government intervention into any of the industries described. The Department of Mines and Energy promotes and facilitates the sustainable development of the province's mineral and energy resources through its resource assessment, management and development activities for the overall benefit of the citizens of Newfoundland and Labrador.

The Department's Energy Branch activities are expected to support provincial economic well-being and the best interests of Newfoundland and Labrador citizens and the Branch carries out these functions through its four main activities: Petroleum Resource Development, Petroleum Project Monitoring, Electricity Industry Development, and Policy and Strategic Planning.

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[109] See Board's mandate online at: <http://www.wcb.ns.ca/> (date accessed: 31 July 2002).

[110] *Workers' Compensation Act*, S.N.S. 1994-95, c.10, as amended.

[111] The Department is responsible for administering 12 different pieces of legislation under powers granted to its Minister through the Executive Council Act. For legislation, see: <http://www.gov.nf.ca/mines&en/legislation/>.

3.1.4 Harbour Authorities

3.1.4.1 Halifax Port Authority (HPA)

***Directly Affected Sectors*:** Marine Transportation
***Indirectly Affected Sectors*:** All may be indirectly affected

The Halifax Port Authority (HPA), a federal organization established under section 8 of the *Canada Marine Act*,[112] administers the port of Halifax. The HPA's mission is to develop, market, and manage its assets in order to foster and promote trade and transportation and to serve as a catalyst for the local, regional, and national economies. HPA's marketing mandate is to cooperate with local port and economic development partners to create an efficient pooling of resources targeted toward business development. All ports, divested or not, are subject to regulations pursuant to the *Canada Marine Act*. Transport Canada - Ports and Harbours has designated officers, appointed under the Act, in charge of monitoring compliance and if necessary empowered to enforce provisions of the Act.

Key activities of the Halifax Port Authority include administering the Halifax Harbour, the Bedford Basin, and the Northwest Arm. The HPA is responsible for building and maintaining port facilities that it rents to expert operators. The HPA leases harbour waterlots, allocates berths and anchorages, works closely with the Navy and Coast Guard in planning for harbour emergencies, and promotes its own facilities and the harbour in general. Key facilities include the Fairview Cove Container Terminal (operated by Cerescorp Company Inc.); South End Container Terminal (operated by Halterm Limited); Richmond Terminals; and Ocean Terminals. Other facilities at the Port of Halifax include bulk handling facilities, oil wharves, and a high volume roll-on/roll-off vessel terminal.

3.1.4.2 Port of Mulgrave/Port Hawkesbury

***Directly Affected Sectors*:** Marine Transportation
***Indirectly Affected Sectors*:** All may be indirectly affected

The Port of Mulgrave/Port Hawkesbury was divested of under the National Marine Policy and is no longer administered by Transport Canada. Incorporated in 1997, the Strait of Canso Superport Corporation Limited is a port owner and operator of two marine facilities – Mulgrave Marine Terminal and the Port Hawkesbury Pier. The mission statement is "to promote and accommodate marine operations in the Strait of Canso for the benefit of the area's economy."

3.1.4.3 Port of Sydney

***Directly Affected Sectors*:** Marine Transportation
***Indirectly Affected Sectors*:** All may be indirectly affected

The Port of Sydney was divested under the National Marine Policy and is no longer administered by Transport Canada. The Cape Breton Regional Municipality oversees the operation of the port through two vessel support service providers, Samsonia Maritime Ltd. and Lorway Shipping Company Ltd.

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[112] *Canada Marine Act*, S.C. 1998, c. 10, available online: <http://laws.justice.gc.ca/en/C-6.7/text.html>.

3.1.4.4 Other Ports

DFO's Small Craft Harbours Branch is responsible for developing, maintaining, and managing harbours that accommodate commercial fishing vessels and recreational vessels. In order to deliver its mandate, the Branch has three main tasks: (i) to create harbour authorities and transfer the operation of the harbours to them; (ii) to transfer ownership of all recreational harbours to community-based groups; and (iii) to rationalize the remaining commercial fishing harbours to an active core. The Branch provides and maintains many types of harbour facilities, some of which include breakwaters, wharves, and launching ramps. The Branch also frequently dredges channels and harbour basins to ensure safe navigation. Depending on the size and amount of activity at a harbour, parking lots, lighting, water supplies, and service areas for mending and storing nets may also be provided.

The Harbour Authority Advisory Council has been in operation since 1997. The Council helps generate effective communication and co-operation between Harbour Authorities and Small Craft Harbours staff. The main goal of the Council is to strengthen the quality of partnering relations between the federal government and the members of clients of Harbour Authorities. More than 80 percent of Small Craft Harbours locations in the Maritimes Region are managed by Harbour Authority groups. As of June 2002, 250 Harbour Authorities oversee daily activities at 287 harbours in the Maritime Provinces. Properties and Engineering staff are responsible for the engineering information for 361 harbours managed by the Small Craft Harbours Branch, Maritimes Region.

3.1.5 Non-State Management Organizations

3.1.5.1 Sable Island Preservation Trust (SIPT)

***Directly Affected Sectors*:** Marine Conservation and Protection
***Indirectly Affected Sectors*:** All may be indirectly affected

The Sable Island Preservation Trust (SIPT) is a non-governmental organization with responsibility for many activities on Sable Island. The goal of SIPT is to ensure the long-term conservation of Sable Island by maintaining ongoing supervisory human presence, establishing educational and interpretation programs, and coordinating core services and activities.

3.2 Domestic Regulatory Processes of ESSIM Sectors

This section of the *Regulatory Overview* sets out the key domestic regulatory processes governing each of the sectors under study:

- Communications and Submarine Cables;
- Fisheries;
- Marine Conservation and Protection;
- Marine Science and Technology;
- Marine Transportation;
- Maritime Defence;
- Oil and Gas; and
- Recreation, Culture and Tourism.

The description of the regulatory framework of each sector is divided in the following sections:

- ***Key Regulatory Processes***: describes the principal regulatory processes governing the sector;
- ***Sectoral Concerns***: identifies the various issues currently of concern to each sector;
- ***Intersectoral Conflicts***: sets out the conflicts between the sectors;
- ***Intersectoral Coordination and Memoranda of Understanding***: discusses the various intersectoral integration initiatives and provides a summary of MOUs in chart form for easy reference;
- ***International Integration***: indicates whether Canada has ratified or complied with its international obligations in each sector and suggests whether or not further international integration is required.

3.2.1 Communications and Submarine Cables

3.2.1.1 Key Regulatory Processes

The Communications and Submarine Cables sector is primarily regulated by Industry Canada, Fisheries and Oceans Canada, and the Canadian Environmental Assessment Agency. For a brief description of each agency's mandate, please refer to the descriptions found in Section 3.1, under "Description of Principal Regulatory/Advisory Bodies." The following section outlines the process for obtaining domestic as well as international cable licences. It sets out the various regulatory activities of the key agencies and identifies the integration efforts, either through formal agreements, as agreed to in MOUs or informal arrangements, such as information sharing or consultation. The following represents the authors' interpretation of the legal regimes in effect in the area of the Scotian Shelf, and it is not the official view or interpretation of the Government of Canada or any of its departments in relation to maritime regulation.

The Province of Nova Scotia issues easements and rights-of-way pursuant to clause (1)(b) of Section 16 of the *Crown Lands Act*. Easements and rights-of-way for submarine cables on the seabed extend out to 150 NM and a pro rated fee mechanism is used to levy a fee for seabed use.[113] The placement of cables is also an activity as referenced in clause (1)(g) of Section 8 of the provincial *Beaches Act*. That clause refers to regulation, and the activity is permitted pursuant to subsections c) and g) of Section 2, and to Section 6 of the Beaches Regulations. Administration of the cable permitting process under the provincial Inland and Coastal Watercourse Policy is conducted by the Land Administration Division of the Department of Natural Resources. This recent provincial cable permitting process is continuing to be developed.

A proponent for a domestic submarine cable in navigable waters must apply for an approval from the Canadian Coast Guard under subsection 5(1) of the *Navigable Waters Protection Act (NWPA)*,[114] unless it is exempted,[115] see the discussion under "Marine Transportation" for greater detail on the subsection 5(1) *NWPA* process. An *NWPA* approval triggers an environmental assessment under the *Canadian Environmental Assessment Act* (hereinafter *CEAA*),[116] which assesses the potential effects of a specific ocean activity, see the discussion under "Marine Conservation and Protection" for further details on the *CEAA* process.

If the cable is laid on the ocean floor, an authorization under subsection 35(2) of the *Fisheries Act*[117] to allow for the harmful alteration, disruption or destruction of fish habitat (hereinafter HADD) may be required, see the discussion under "Fisheries" for further details on the HADD authorization process. In cases of cable burial, a disposal at sea permit issued in accordance with provisions of Part 7, Division 3 of the *Canadian Environmental Protection Act, 1999 (CEPA, 1999)*[118] may be required for activities that involve the deliberate disposal of marine sediment. As with the *NWPA* process, a *CEAA* review will be triggered if either the *Fisheries Act* or *CEPA, 1999* authorizations are required. Domestic cables are not licensed by any federal government department and no additional regulations or fees apply to the cable after it has been laid. The application of the *NWPA* is limited to the 12-NM territorial sea and is not normally applied to works between 12 and 200 NM.[119]

A proponent for an international cable, which goes through Canadian waters but has landing points outside of Canada, must apply for a permit from Industry Canada under the *International Submarine Cable Licences Regulations*[120] of the *Telecommunications Act*[121] and for an exemption or approval under the *NWPA*, the *Fisheries Act*, and/or *CEPA, 1999*, as required. The licence fee for the Industry Canada permit is $100 per year. As with the other domestic permits and licences, the Industry Canada permitting process triggers an environmental assessment under

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[113] Recent cables permitted under this arrangement were for a recommissioned cable from Beaver Harbour to Sable Island and the Hibernia cable project's three cables landfalling near Halifax.

[114] *Navigable Waters Protection Act*, R.S.C. 1985, c. N-22 (hereinafter *NWPA*).

[115] An exemption confirms that no navigational hazard exists or would be created, and as such no further consideration is required under the *NWPA*.

[116] *Canadian Environmental Assessment Act*, 1992, c. 37.

[117] *Fisheries Act*, R.S.C 1985, c. F-14.

[118] *Canadian Environmental Protection Act, 1999*, S.C., 1999, c. 33.

[119] Personal Communication from Jon Prentiss, Canadian Coast Guard, 20 July 2000.

[120] *International Submarine Cable Licences Regulations*, SOR/98-488.

[121] *Telecommunications Act*, S.C. 1993, c. 38. This applies to "terminating cable licences" and "through cable licences" which have fees of only C$100 per annum. The latter refers to cables that extend across Canadian seabed but do not landfall in Canada. Fees for cable licenses vary considerably in different national jurisdictions.

CEAA.[122] The *Telecommunications Act* only applies to "through cables" if laid within the 12-NM territorial sea.[123]

As examined under "Marine Conservation and Protection," the Responsible Authority under *CEAA* is required to consider socio-economic impacts of a project, such as the interactions between cables and other ocean uses. It should be noted that in most cases, the laying and operation of submarine cables is a relatively benign use of the seabed, and most environmental concerns can be addressed effectively through the *CEAA* process. In general, environmental issues pertaining to submarine cables are minimal and route specific. However, the socio-economic effects of cables are greater in areas where cables are unburied. Unburied cables pose a risk to accessing the seabed and restrict activity through the threat of legal liability for cable damage.

Please see the chart (Table 3-1) and graphic (Figure 3-1) summarizing these regulatory processes at the end of this section.

3.2.1.2 Sectoral Concerns

It should also be recognized that there are important issues related to the security of submarine cables. In essence, fibre-optic cable networks are a modern sea-line of communication with important implications for global economic and maritime security, broadly defined. When examining measures for protecting submarine cables, both the physical security of the cable infrastructure and the "virtual" security of the commerce and information flowing through cables must be considered.

3.2.1.3 Intersectoral Conflicts

With the recent development of high-capacity digital, fibre-optic submarine cable systems and the existing and proposed oil and gas pipelines on the Scotian Shelf, the potential exists for spatial conflicts between cable and pipeline operators and other ocean users. Cable snags by merchant vessels have occurred recently in both Canada and the USA and repair costs can range from $1 to $2 million per incident. Coastal communities have voiced opposition to the planning processes used in the licensing of pipelines and cables and some are concerned with the impacts on navigation and coastal and offshore fisheries. In particular, issues arising from intersectoral conflict include: the legality of exclusion/safety zones; legal liability for damaging infrastructure; compensation for lost or damaged fishing gear due to cable interactions; and unclear jurisdiction and interdepartmental coordination in the *Canadian Environmental Assessment Act* environmental assessment and licensing processes. These intersectoral conflicts require interagency and intersectoral collaboration in the planning and routing of cables, as well as cooperation in the maintenance and protection of cables in multiple use areas. The following section describes each of these issues.

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[122] Industry Canada as Responsible Authority under *CEAA* engages federal departments through Regulations Respecting the Coordination by Federal Authorities of Environmental Assessment Procedures.

[123] John Janes, Industry Canada, personal communication.

Cable Exclusion/Safety Zones: In some cases, the cable industry has advertised safety/exclusion zones along cable routes to restrict activity and reduce the risk of snagging unburied cables. To provide maintenance and repairs, cable companies usually require a minimum separation between cables of 500 m or twice the water depth to avoid inadvertent snags during cable repairs. However, new technology may reduce this separation distance. The fishing industry is particularly concerned about the loss of fishing areas where exclusion/safety zones are claimed and the potential threat exists of legal liability for cable damage. For example, in an Atlantic Canadian fishing industry publication,[124] Teleglobe Canada advertises a 1-NM exclusion zone along cable routes for bottom fishing despite there being no legal basis in Canadian federal or provincial law for claiming exclusion zones for submarine cables. Seabed utility corridors could exclude certain types of fishing gear. Further discussions with the industry on this issue will be required.

Legal Liability: There is a legal basis for liability from wilful and/or negligent damage to submarine cables. The current liability and compensation regime pertaining to cables is based on international law as set out in the 1884 Convention for the Protection of Submarine Cables, as described in section 4.3 – "Summary of International Legal instruments by Sector." More recent manifestations of international legal protection for submarine cables include the 1958 Convention on the High Seas and its superseding 1982 United Nations Convention on the Law of the Sea. In order to seek compensation for cable repair costs through civil litigation under the private law of torts, the cable owner as plaintiff has the onus to prove negligence on the part of the master of a fishing or cargo vessel snagging a cable. The exercise of due diligence is a defence by masters to litigation for snagging and damaging an operational cable in Canada. Three recent civil court cases involving snags of Teleglobe Canada's cables on the Scotian Shelf have been settled out of court and are therefore confidential. One involved an iron ore carrier that accidentally damaged a cable with its anchor in the approaches to Halifax; and two involved trawlers that damaged cables on the continental slope.

Fisheries Compensation Issues: Fishing industry associations in the USA (Oregon, California and Alaska) and Canada have attempted to lessen the impacts of fishing/cable interaction through industry-to-industry compensation agreements. The inclusion of a compensation program as a licence condition was proposed to provide a set of minimum terms and conditions for application to all fishing interests and avoid the requirement for multiple compensation programs between cable companies and all affected fishers. A precedent exists for compensation programs among ocean sectors operating on the Scotian Shelf. The Sable Offshore Energy Inc. Commercial Fisheries Compensation Program provides fishers an alternative to making a claim through the Canada-Nova Scotia Offshore Petroleum Board or the courts. The Program covers losses as a result of damage to fishing gear or vessels and includes lost wages.

Regulatory Gaps: After authorizations are obtained for the installation of cables, any conditions resulting from the environmental assessment that have been incorporated into the license or permit continue to apply to the holder of the licence. However, subsequent interactions between cable operations and other ocean activities are not specifically addressed within the myriad of ocean-related legislation in Canada. For example, there are no legal requirements to remove inactive/abandoned submarine cables from the seabed. Although retired submarine cables can in certain cases be used by the scientific community for geoscience or acoustic research applications,[125] the regulated removal of unburied portions of inactive cables by the cable industry would reduce the frequency of cable snags and eliminate the guesswork required to determine the status of snagged cables. Furthermore, the environmental effects of removal need to be considered. The technical and economic feasibility of removing unburied portions of inactive cables could be explored with the cable-ship industry.

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[124] *The Sou'wester: The Voice of Atlantic Canada's Fishing and Marine Industry*. ISSN: 0049-1705. Yarmouth, Nova Scotia.

Application of Canadian Environmental Assessment Act: Uncertain and differing approaches in the way in which federal departments are fulfilling their responsibilities under *CEAA* also contributes to intersectoral conflicts. The Act provides considerable discretion to responsible authorities in determining how to fulfil their responsibilities under the Act. This has led to differing interpretations of what should be considered and how assessments should be conducted. For example, section 2 of *CEAA* defines an "environmental effect" as including any change that the project may cause in the environment, including any effect of any such change on health, social and economic conditions. Assessments of other offshore activities have included any exclusion or safety zones around facilities to be a component of the project and thus have considered the direct effects of such zones in the assessment. Such assessments have thus also considered the potential for social and/or economic effects occurring as a result of the exclusion or safety zones. Recently, the Canadian Environmental Assessment Agency has interpreted that an exclusion zone constitutes a change in the environment, which may result in social and/or economic effects on other ocean activities.[126] Consistent with other assessments of offshore activities, the Agency informed DFO that the impacts on fishing activity in relation to exclusion or safety zones constitute an environmental effect under CEAA. To ensure investor confidence, the criteria, guidelines, and timeframe for the environmental assessment screening process need streamlining for certainty and clarity.

Differing interpretations have also been raised as to whether an unburied cable constitutes an environmental effect and whether the licensing authority could legally attach a licence condition requiring a compensation policy or program. Without a licence condition for a compensation program there is no legal requirement for the cable company to enter into such agreements, presenting a situation of potential liability and safety issues for shipping and fishing interests.

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[125] In September 1998, a permanent deep ocean scientific research facility – the Hawaii-2 Observatory, or H2O – was installed on a retired AT&T submarine telephone cable that runs between Oahu, Hawaii and California. Chave, A.D., F.K. Duennebier, R. Butler. 2000. Putting H2O in the Ocean. *Oceanus*, 42(1): 6–9; A.D. Chave et al., 2002. "H2O: The Hawaii-2 Observatory," in: *Science-Technology Synergy for Research in Marine Environment: Challenges for the XXI Century*, (ed.). L. Beranzoli, P. Favali, G. Smriglio, *Developments in Marine Technology Series 12*, Elsevier.

[126] Bill Coulter, CEAA Regional Director, Atlantic, personal communication via email, March 2, 2000.

Table 3-1 Regulatory Process for Communications and Submarine Cables

A) Submarine Cable Licensing Process: Domestic Cables

Steps	Details
1. **(a) Application to Canadian Coast Guard for an approval under the *Navigable Waters Protection Act* (*NWPA*).**	- A *NWPA* approval triggers an environmental assessment under the *Canadian Environmental Assessment Act* (*CEAA*). - Domestic cables are not licensed by Industry Canada under the *Telecommunications Act*. - CCG Navigable Waters Protection (NWP) Program forwards the project to Habitat Management (HM) and an environmental screening assessment is done. However, NWP does not include HM's mitigating conditions as part of its approval document. Compliance is difficult to enforce if mitigating measures are not conditions of the NWP approval. - An exemption under Section 5 of the *NWPA* can be granted if the work does not interfere with navigation.
(b) Coast Guard as a Responsible Authority (RA) under *CEAA* engages federal departments through the *Regulations Respecting the Coordination by Federal Authorities of Environmental Assessment Procedures*.	- Coast Guard must determine the requirement for an environmental assessment of the project under section 5 of *CEAA* and whether additional information is necessary to make that determination (within 30 days of receiving the application). - If affirmative, Coast Guard (and any other triggered departments) becomes the RA and is then required to coordinate the determination and assessment with all relevant departments.
2. **An Environmental Screening Assessment is conducted for the cable project.**	- Under Section 18 of *CEAA*, the RA has some discretion regarding what information to consider and whether to invite the public (e.g., fishing industry) to participate in the screening study process. - Recommendations are provided by federal participants to the RA for inclusion in the screening, as appropriate. - Authorization under Section 35 of *Fisheries Act* may be required for fish habitat alteration. - In cases of cable burial, the disposal at sea provision at subsection 127(1) of the *Canadian Environmental Protection Act, 1999* may be triggered. - The RA is required to consider socio-economic issues, where such effects occur as a result of a change in the environment caused by the project.
3. **After the domestic cable is laid.**	- No additional regulations apply to the cable after it has been laid. - Under the current legislative framework, domestic cables do not require licenses. - Cable location is provided by NWPA to CHS for placement on CHS navigation charts.

B) Submarine Cable Licensing Process: "Terminating" and "Through" International Cable Licenses*

Steps	Details
1. **Application to Industry Canada under *International Submarine Cable Licences Regulations* of the *Telecommunications Act*.**	Application includes: - Origin and intended cable route, including termination points. - Documentation for compliance with *CEAA*. - Technical details/capabilities of cable. - Payment of license fee ($100/year).

Table 3-1 Regulatory Process for Communications and Submarine Cables

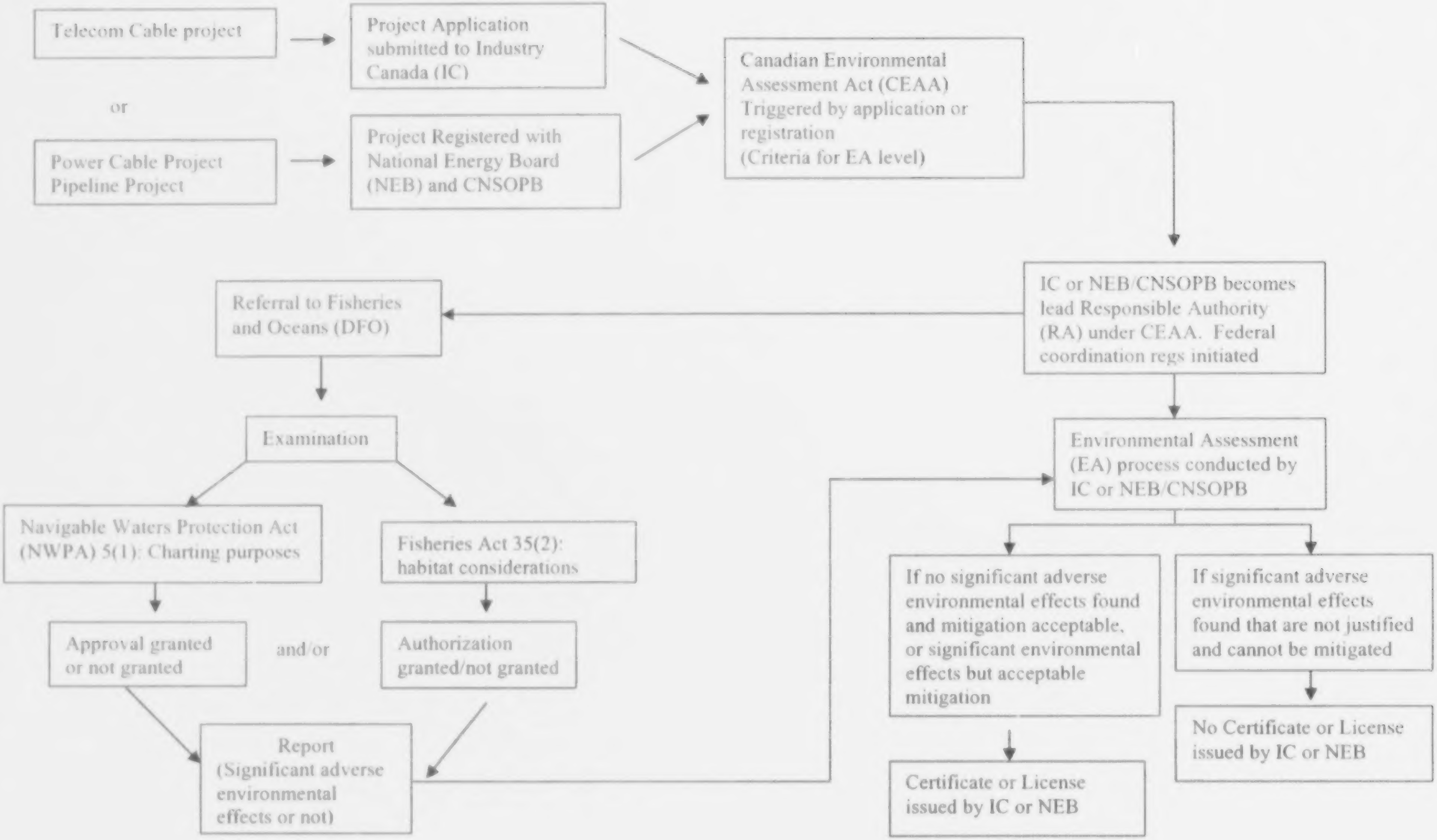
A) Submarine Cable Licensing Process: Domestic Cables	
Steps	**Details**
1. **(a) Application to Canadian Coast Guard for an approval under the *Navigable Waters Protection Act* (*NWPA*).**	• A *NWPA* approval triggers an environmental assessment under the *Canadian Environmental Assessment Act* (*CEAA*). • Domestic cables are not licensed by Industry Canada under the *Telecommunications Act*. • CCG Navigable Waters Protection (NWP) Program forwards the project to Habitat Management (HM) and an environmental screening assessment is done. However, NWP does not include HM's mitigating conditions as part of its approval document. Compliance is difficult to enforce if mitigating measures are not conditions of the NWP approval. • An exemption under Section 5 of the *NWPA* can be granted if the work does not interfere with navigation.
(b) Coast Guard as a Responsible Authority (RA) under *CEAA* engages federal departments through the *Regulations Respecting the Coordination by Federal Authorities of Environmental Assessment Procedures*.	• Coast Guard must determine the requirement for an environmental assessment of the project under section 5 of *CEAA* and whether additional information is necessary to make that determination (within 30 days of receiving the application). • If affirmative, Coast Guard (and any other triggered departments) becomes the RA and is then required to coordinate the determination and assessment with all relevant departments.
2. **An Environmental Screening Assessment is conducted for the cable project.**	• Under Section 18 of *CEAA*, the RA has some discretion regarding what information to consider and whether to invite the public (e.g., fishing industry) to participate in the screening study process. • Recommendations are provided by federal participants to the RA for inclusion in the screening, as appropriate. • Authorization under Section 35 of *Fisheries Act* may be required for fish habitat alteration. • In cases of cable burial, the disposal at sea provision at subsection 127(1) of the *Canadian Environmental Protection Act, 1999* may be triggered. • The RA is required to consider socio-economic issues, where such effects occur as a result of a change in the environment caused by the project.
3. **After the domestic cable is laid.**	• No additional regulations apply to the cable after it has been laid. • Under the current legislative framework, domestic cables do not require licenses. • Cable location is provided by NWPA to CHS for placement on CHS navigation charts.

B) Submarine Cable Licensing Process: "Terminating" and "Through" International Cable Licenses*	
Steps	**Details**
1. **Application to Industry Canada under *International Submarine Cable Licences Regulations* of the *Telecommunications Act*.**	Application includes: • Origin and intended cable route, including termination points. • Documentation for compliance with *CEAA*. • Technical details/capabilities of cable. • Payment of license fee ($100/year).

2. (a) Application to Canadian Coast Guard for an exemption or approval under the *Navigable Waters Protection Act* (*NWPA*).	• Details of cable location are provided to Coast Guard and Canadian Hydrographic Service for promulgation through Notice to Mariners and CHS navigation charts. • In the case of an approval (as opposed to an exemption) under subsection 5.1A or 6.4 of the *NWPA*, the CEAA process is automatically triggered. • Coast Guard – NWP Program is the entry point in DFO for all cable proposals. Proponents are required to submit projects to NWP and an initial navigation impact assessment is made. After determining under which section of *NWPA* the application should be processed, the information is sent to Habitat Management. To date, involvement by other DFO branches (i.e., Fisheries Management; Oceans and Coastal Management Division) has been *ad hoc*, based on direct requests from client groups (e.g., fishing industry associations).
(b) Industry Canada as Responsible Authority (RA) under *CEAA* engages federal departments through the *Regulations Respecting the Coordination by Federal Authorities of Environmental Assessment Procedures*.	• Within 30 days of receiving the application, Industry Canada must determine the requirement for an environmental assessment of the project under s. 5 of *CEAA* and whether additional information is necessary to make that determination. • If affirmative, Industry Canada becomes the RA and is then required to coordinate the determination and assessment with all relevant departments.
3. An Environmental Screening Assessment is conducted for the cable project.	• Under s. 18 of *CEAA*, the RA has some discretion regarding what information to consider and whether to invite the public (e.g., fishing industry) to participate in the screening study process. • Recommendations are provided by federal participants to the RA and any conditions resulting from the screening study can be incorporated into the Industry Canada licence. • Authorization under s. 35 of *Fisheries Act* may be required for fish habitat alteration. • In cases of cable burial, the disposal at sea provision at subsection 127(1) of the *Canadian Environmental Protection Act, 1999* may be triggered. • The RA is required to consider socio-economic issues, where such effects occur as a result of a change in the environment caused by the project.
4. After the international submarine cable is laid.	• The conditions resulting from the environmental assessment can be incorporated into the license and continue to apply to the license holder for the life of the cable. • No additional regulations apply to the cable after it has been laid. • Cable location is provided by the NWP Program to CHS for placement on CHS navigation charts.

*"Terminating cable license" refers to a license issued for an international cable that extends between any place outside Canada and is connected to telecommunications facilities inside Canada. "Through cable license" refers to a license issued for an international cable that extends through Canada between locations outside Canada and does not connect to telecommunications facilities in Canada.

Figure 3-1 Regulatory Process for International Submarine Cables/Pipelines


Telecom Cable project
or
Power Cable Project
Pipeline Project
Project Application submitted to Industry Canada (IC)
Project Registered with National Energy Board (NEB) and CNSOPB
Canadian Environmental Assessment Act (CEAA) Triggered by application or registration (Criteria for EA level)
IC or NEB/CNSOPB becomes lead Responsible Authority (RA) under CEAA. Federal coordination regs initiated
Referral to Fisheries and Oceans (DFO)
Examination
Navigable Waters Protection Act (NWPA) 5(1): Charting purposes
Fisheries Act 35(2): habitat considerations
Approval granted or not granted
and/or
Authorization granted/not granted
Report (Significant adverse environmental effects or not)
Environmental Assessment (EA) process conducted by IC or NEB/CNSOPB
If no significant adverse environmental effects found and mitigation acceptable, or significant environmental effects but acceptable mitigation
If significant adverse environmental effects found that are not justified and cannot be mitigated
Certificate or License issued by IC or NEB
No Certificate or License issued by IC or NEB

3.2.1.4 Intersectoral Coordination and Memoranda of Understanding

In both domestic and international cases, the location of the cable is communicated to the shipping sector through Coast Guard Notices to Mariners and on navigation charts provided by the Canadian Hydrographic Service.

The cable/fishing issue should be addressed in the context of oceans and coastal management planning. Ocean-use planning concepts and tools such as area-based management[127] and zonation could be used to address multiple ocean use. Whatever mechanism is used to resolve and avoid user conflict, it must be achieved collaboratively, with consideration for all interests involved.

The development of a transparent and stable interdepartmental process for the coordinated planning, management and regulation of submarine cables, inclusive of all interested and involved parties, would be a positive step forward in the development of integrated management processes in coastal and marine areas.

To date, it appears that no Memoranda of Understanding have been signed on the east coast between or among the various sectors with respect to Communications and Submarine Cables.

3.2.1.5 International Integration

Regulatory deficiencies exist in cases of conflict between submarine cables and other ocean uses in Exclusive Economic Zone areas. Based on recent experience with proposed cables, Canada may need to fully address the provisions of Articles 113–115 of the 1982 Convention on the Law of the Sea within Canadian law.[128]

3.2.2 Fisheries

3.2.2.1 Key Regulatory Processes

The key departments regulating the Fisheries sector are Fisheries and Oceans Canada (or DFO) and the Nova Scotia Department of Agriculture and Fisheries. For a brief description of each department's mandate, please refer to the description found in section 3.1, under "Description of Principal Regulatory/Advisory Bodies."

The following section outlines the various processes associated with respect to fishing activities. It also sets out the various regulatory activities of the key agencies and identifies the integration efforts, either through formal agreements, as agreed to in MOUs or informal arrangements, such as information sharing or consultation.

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[127] Area-based management is a generic term to describe spatial and temporal zoning of multiple oceans use based on a classification of ecological sub-areas.

[128] Canada ratified the Law of the Sea Convention on 7 November 2003 and the Convention entered into force for Canada on 7 December 2003.

Fisheries Act

Among the statutes administered by DFO, the *Fisheries Act* is its oldest pieces of legislation, enacted over 100 years ago in the early days of confederation. Although the *Fisheries Act* has been amended in an ad hoc manner numerous times over the last century, it has not been revised as a whole. Consequently, it has not been updated to reflect modern language, to reorganize often amended provisions, to account for changing operational practices or to reflect the considerable changes that have occurred in the intervening years in the policies and programs for regulating fisheries and marine environmental protection.

DFO recently conducted several policy review initiatives, such as the Atlantic Fisheries Policy Review and the Departmental Assessment and Alignment Project, reviewing its major policy and program lines. In addition, DFO is also considering how to reflect the emerging concept of "Smart Regulation" as well as the coordination of the interaction between habitat provisions in the *Fisheries Act*. Depending on the choices made, overhauling the *Fisheries Act* is likely to be required shortly thereafter.

3.2.2.2 Fisheries and Oceans Canada

The Department of Fisheries and Oceans (DFO) has, under the 1997 *Oceans Act*, the lead oceans role in Canada and is responsible for coordinating federal policies and programs relating to the oceans. DFO is also the lead federal department for fisheries, fish habitat conservation and protection, maritime safety, aquaculture, marine sciences and hydrographic services. With the transition of the Canadian Coast Guard to a Special Operating Agency, the Coast Guard is also responsible for the provision of marine navigation services, communications, icebreaking services, and related marine regulation. Transport Canada has retained responsibility for ship safety. In addition, DFO maintains about 2,100 fishing and recreational harbours and operates nine ocean science institutes across the country.

The DFO Vision statement reads as follows:

> Safe, healthy, productive waters and aquatic ecosystems, for the benefit of present and future generations, by maintaining the highest possible standards of:
>
> - Marine Safety and Environmental Protection;
> - Scientific Excellence;
> - Conservation and Sustainable Resource Use; and
> - Service to Canadians.[129]

To achieve this vision, DFO has identified five long-term priorities and goals:

- Managing and protecting fisheries resources;
- Contributing to the protection of the marine and freshwater environment;
- Understanding the oceans and aquatic resources;

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[129] See DFO's website: <http://www.dfo-mpo.gc.ca/dfo-mpo/vision_e.htm>

- Maintaining marine safety; and
- Facilitating maritime commerce and ocean development.

For a description of DFO's Oceans and Environment Branch activities, see the DFO description in Section 3.1.2 on federal agencies and departments.

Canada's Oceans Strategy

Canada's Oceans Strategy is a new approach to oceans governance in Canada designed to transform the management of our oceans and their resources. At the heart of the Oceans Strategy is a commitment to adopt an integrated approach to oceans governance. Integrated management requires new ways to collaborate – across the federal government, with provinces and territories, with First Nations and Aboriginal people and organizations, with oceans industries, with academia and civil society, with other nations and international organizations, and with Canadians generally. Canada's Oceans Strategy provides a collaborative framework to ensure that our oceans are used in a sustainable way.

As called for in the *Oceans Act*, the Oceans Strategy is based on the principles of sustainable development, integrated management, and the precautionary approach. The Strategy calls for the broad application of these principles to all oceans activities.

The Oceans Strategy establishes four over-arching objectives:

- understanding and protecting the marine environment,
- supporting sustainable economic development,
- international leadership, and
- modern oceans governance.

To further each of these objectives, the Oceans Strategy also elaborates a series of actions that will be undertaken. Highlights of these measures are as follows:

Understanding and Protecting the Marine Environment:

- Development of a "State of the Ocean" reporting system,
- Improvement of our scientific knowledge base of marine ecosystems,
- Development of a framework for a program of action to address sea-based sources of marine pollution, and
- Development of a strategy for a national network of marine protected areas.

Supporting Sustainable Economic Development:

- Strengthening of measures to improve and support management and governance of marine industries, including fishing, aquaculture, offshore oil and gas, offshore minerals, shipbuilding and industrial marine, and innovation,
- Conducting an economic analysis of emerging oceans industries,

- Developing a marine and oceans industries technology roadmap to help identify technologies that could be supported by Technology Partnerships Canada (TPC), and
- Examination of regulatory regimes to improve coordination and ensure effective environmental protection.

International Leadership:

- Strengthening the maintenance of maritime sovereignty and security,
- Development of management arrangements with bordering nations for management of trans-boundary coastal and marine ecosystems, and
- Supporting capacity development for developing countries for the sustainable development of marine resources.

Oceans Governance:

- Implementing integrated management planning initiatives on all three coasts,
- Developing a federal-provincial-territorial work plan for oceans management for the Canadian Council of Fisheries and Aquaculture Ministers, and
- Promoting the engagement of Canadians in stewardship activities for the sustainable development of our oceans.

The Speech from the Throne on 2 February 2004 indicated that the Government would place increased emphasis "on opportunities to maximize the potential of our vast coastal and offshore areas through a new Oceans Action Plan." The Parliamentary Secretary to the Minister of Fisheries and Oceans is specifically charged with the development of this Action Plan.

Fisheries Act HADD Permit

As described in Section 3.1.2 under the Fisheries and Oceans Canada description, Habitat Management staff of DFO administers the authorization process under subsection 35(2) of the *Fisheries Act*. An authorization may be required under the *Fisheries Act* if a proposed work has the potential to result in the harmful alteration, disruption or destruction (hereinafter "HADD") of fish habitat. This authorization is a voluntary requirement, initiated by an applicant as a legal step to avoid possible prosecution under the *Fisheries Act*.

The Habitat Management staff may be apprised of the proposed developments by direct notification from an applicant, through another federal agency pursuant to the *Federal Coordination Regulations* of *CEAA*, or through a provincial agency.[130] Regardless of how DFO receives the referral, early contact with DFO is advised so that the habitat in question and any constraints associated with the proposal can be identified as soon as possible. In general, the HADD application should contain a project description that includes the following information:

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[130] DFO has a working arrangement through the Environmental Assessment Section of the NS Department of Environment and Labour. Through this arrangement, DFO-HMD is alerted of activities being reviewed by the province.

- a description of the existing aquatic environment (e.g., substrate, currents, physical oceanography, etc.);
- a statement about the presence of fish, fish habitat, fisheries and/or navigable waters;
- a description of the proposed activities and their potential impacts; and
- a description of any mitigation measures that have been proposed.

Section 35 of the *Fisheries Act* reads as follows:

> (1) No person shall carry on any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat.
>
> (2) No person contravenes subsection (1) by causing the alteration, disruption or destruction of fish habitat by any means or under any conditions authorized by the Minister or under regulations made by the Governor in Council under this Act.

The Conservation and Protection staff of DFO is responsible for enforcing these habitat protection provisions. Anyone found to contravene subsection 35(1) of the *Fisheries Act* is liable under summary conviction for a first offence of $300,000.

In cases where the proposed undertaking is likely to result in a HADD, which cannot be fully mitigated, a subsection 35(2) *Fisheries Act* authorization may be issued provided there is adequate compensation to achieve a "no net loss" of such habitat, in accordance with DFO's *Policy for the Management of Fish Habitat.*[131] Under this policy, DFO strives to balance unavoidable habitat losses with habitat replacement so that further reductions to Canada's fisheries resources due to habitat loss or damage may be prevented.[132] A subsection 35(2) *Fisheries Act* Authorization lists terms and conditions of operations and the associated compensation.

This Authorization does not permit activities that result in the deposit of deleterious substances, pursuant to subsection 36(3) of the *Fisheries Act*. "Deleterious substance" is defined in subsection 34(1) of the *Fisheries Act* as:

> *(a)* any substance that, if added to any water, would degrade or alter or form part of a process of degradation or alteration of the quality of that water so that it is rendered or is likely to be rendered deleterious to fish or fish habitat or to the use by man of fish that frequent that water, or
>
> *(b)* any water that contains a substance in such quantity or concentration, or that has been so treated, processed or changed, by heat or other means, from a

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[131] For a more detailed discussion, see: Fisheries and Oceans Canada, *Habitat Conservation and Protection Guidelines Developed from the Policy for the Management of Fish Habitat (1986)*, 1998 2nd ed., (Ottawa: DFO, 1998); Fisheries and Oceans Canada, *Fish Habitat Conservation and Protection - Guidelines for Attaining No Net Loss* (Ottawa: DFO, 1995); and Fisheries and Oceans Canada, *The Department of Fisheries and Oceans Policy for the Management of Fish Habitat* (Ottawa: DFO, 7 October 1986).

[132] See Fisheries and Oceans Canada, *Fish Habitat Conservation and Protection - What the Law Requires: The Directive on the Issuance of Subsection (2) Authorizations* (Ottawa: DFO, 1995).

> natural state that it would, if added to any other water, degrade or alter or form part of a process of degradation or alteration of the quality of that water so that it is rendered or is likely to be rendered deleterious to fish or fish habitat or to the use by man of fish that frequent that water.

"Fish habitat" is defined by subsection 34(1) of the *Fisheries Act* as:

> spawning grounds and nursery, rearing, food supply and migration areas on which fish depend directly or indirectly in order to carry out their life processes.

To determine whether the proposed undertaking is likely to result in a HADD, the following factors may be considered:

- the project's potential to affect fish, fish habitat and fisheries, and the nature of the impact (fish life stages, their habitat, and utilization sensitivities to habitat changes)
- the presence or abundance of fish species that support, or have the potential to support subsistence, commercial and/or recreational fisheries;
- whether or not the species at risk is considered vulnerable, threatened or endangered and supports, or has the potential to support a fishery;
- the productive capability of the habitat to support various fish species and their different life stages/processes;
- the availability and anticipated effectiveness of proposed mitigation and/or compensation measures;
- proportion of similar habitats contributing to the production of the fish stock that may be affected;
- the habitat's resilience to change and the amount of time it would need to recover;
- project impacts to bio-physical attributes such as substrate, aquatic vegetation, currents, sedimentation, physical oceanography, water quality, etc.;
- the type and extent of habitat to be impacted (spatial context);
- the timing of the project construction/operation in relation to habitat utilization (temporal context);
- construction, operation and decommissioning or abandonment details of the project;
- changes to the integrity of the habitat (future habitat impacts);
- short-term and long-term impacts to key habitat components and life processes of fish; and
- all other factors that habitat staff deem important to consider on a project specific basis.[133]

If the proposed project is likely to result in a HADD of fish habitat, a hierarchy of options has been identified by the Habitat Management staff to protect habitat from any adverse effects. This is carried out in accordance with the "No Net Loss" Guiding Principle of DFO's Policy for Management of Fish Habitat. The hierarchy of options (in order of preference) is as follows:

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[133] Fisheries and Oceans Canada, "Fish Habitat Conservation and Protection - Guidelines for Attaining No Net Loss" (Ottawa: DFO, 1995) at p. 7 and Fisheries and Oceans Canada, "Decision Framework for the Determination and Authorization of Harmful Alteration, Disruption or Destruction of Fish Habitat" (Ottawa: DFO, 1998) at p. 9.

- project relocation;
- project redesign; and/or
- mitigation of adverse impacts in cases where project relocation and redesign are not possible.[134]

Relocation, redesign and mitigation are frequently used in combination to avoid HADD of fish habitat, and to ensure that projects comply with the habitat protection provisions of the *Fisheries Act*. If a HADD may be avoided through project relocation or redesign, the Habitat Management staff may contact the applicant to suggest that he/she incorporate the necessary changes and resubmit the proposal.

If the impacts of a project can be fully mitigated, a subsection 35(2) *Fisheries Act* Authorization is not required; instead, the Habitat Management staff may issue a Letter of Advice to the Applicant. The purpose of the Letter of Advice is to concur with proposed mitigative measures within the application and/or suggest further or contingent mitigative measures.[135]

Within the project review process, the Habitat Management staff may suggest the following mitigation measures that may vary depending on site-specific conditions of the project:

- defining timing windows for work in waters containing fish habitat to minimize interference with critical life processes, such as fish migration and spawning;
- re-arranging or compressing the work schedule to complete the job sooner;
- selecting the least harmful equipment/materials/construction methods;
- implementing measures to control siltation at construction sites; or
- a combination of such measures.[136]

Although the preference is to avoid or to fully mitigate the adverse effects of a proposed project, in cases where this is not possible, the Habitat Management staff will determine whether the HADD can be compensated. This determination may be based on habitat and fisheries specific to the region or to the water body in question. There are two situations in which fish habitat compensation is unacceptable. First, compensation is not typically entertained as an option for the loss of critical habitats. Secondly, as mentioned above, compensation is not an option for the loss of productive fish habitat resulting from the introduction of a deleterious substance into fisheries waters.

If Habitat Management staff decide that a HADD cannot be compensated, it will reject the application. The Applicant still has the option at this point to redesign and resubmit the proposal and to attempt to fully mitigate the potential adverse effects of the proposed project.

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[134] See Fisheries and Oceans Canada, *Habitat Conservation and Protection Guidelines Developed from the Policy for the Management of Fish Habitat (1986)*, 1998 2nd ed. (Ottawa: DFO, 1998) at p. 4 and Fisheries and Oceans Canada, *Fish Habitat Conservation and Protection - Guidelines for Attaining No Net Loss* (Ottawa: DFO, 1995) at p. 8.

[135] See Fisheries and Oceans Canada, *Habitat Conservation and Protection Guidelines Developed from the Policy for the Management of Fish Habitat (1986)*, 1998 2nd ed. (Ottawa: DFO, 1998) at p. 5.

[136] See Fisheries and Oceans Canada, "Habitat Conservation and Protection Guidelines Developed from the Policy for the Management of Fish Habitat (1986)", 1998 2nd ed. (Ottawa: DFO, 1998) at p. 8.

The Applicant may also decide to initiate an appeal of the decision to senior management of DFO, pursuant to the internal appeal process under the *Policy for the Management of Fish Habitat*.[137]

If the decision of the Habitat Management staff is that a HADD may be adequately compensated, a subsection 35(2) *Fisheries Act* Authorization is drafted, outlining the list of terms and conditions of operations. A Compensation Agreement is also negotiated between DFO-Habitat Management staff and the Applicant. The Compensation Agreement is drafted in accordance with DFO's policy for the Management of Fish Habitat and the "No Net Loss" guiding principle.

Presented in order of preference, the following is a list of guidelines for developing the Compensation Agreement:

- create similar habitat at or near the development site within the same ecological unit;
- create similar habitat in a different ecological unit that supports the same stock or species;
- increase the productive capacity of existing habitat at or near the development site and within the same ecological unit;
- increase the productive capacity of a different ecological unit that supports the same stock or species; and/or
- increase the productive capacity of existing habitat for a different stock or a different species of fish either on or off site.[138]

Once it has been determined that a subsection 35(2) *Fisheries Act* Authorization is required, then the Habitat Management staff, a federal authority under the *CEAA*, is required to conduct an environmental assessment of the project pursuant to the provisions of the *CEAA*. While the Compensation Agreement is being negotiated, as well as in cases where major development projects are being considered, the Habitat Management staff may undertake public consultations. This is particularly common in situations where it may not be feasible to avoid habitat loss or damage.[139] Such public consultations may be undertaken in conjunction with the environmental assessment required under *CEAA*.

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[137] Department of Fisheries and Oceans, "The Department of Fisheries and Oceans Policy for the Management of Fish Habitat" (Ottawa: DFO: 7 October 1986) at p. 26.

[138] See Fisheries and Oceans Canada, *Habitat Conservation and Protection Guidelines Developed from the Policy for the Management of Fish Habitat (1986)*, 1998 2nd ed. (Ottawa: DFO, 1998) at p. 9 and Fisheries and Oceans Canada, *Fish Habitat Conservation and Protection - Guidelines for Attaining No Net Loss* (Ottawa: DFO, 1995) at p. 6.

[139] See Fisheries and Oceans Canada, *Habitat Conservation and Protection Guidelines Developed from the Policy for the Management of Fish Habitat (1986)*, 1998 2nd ed. (Ottawa: DFO, 1998) at p. 15.

Canadian Coast Guard [140]

Coast Guard involvement and services are important to the effective development and operation of the ESSIM Plan. The mission-related objectives of the Coast Guard are to improve safety, protect the marine environment, support understanding of oceans/maritime activities, facilitate shared use of our waters, and provide marine expertise. Coast Guard involvement in the IM process will occur though its five business lines:

Rescue, Safety and Environmental Response:

- marine search and rescue;
- environmental preparedness and response;
- departmental national emergency preparedness; and
- promotion of boating safety through prevention and regulation.

Marine Navigation Services:

- national system of aids to navigation;
- waterways development and maintenance services; and
- protection of the public right to navigation in the marine environment.

Marine Communication and Traffic Services:

- distress and safety communications monitoring and alerting;
- vessel screening to prevent entry of unsafe vessels into Canadian waters;
- regulation of vessel traffic movements;
- management of integrated system of marine information and public correspondence services;
- optimization of traffic movements and port efficiency; and
- facilitation of industry ship-to-shore communications.

Icebreaking Services:

- icebreaking escort;
- channel maintenance;
- flood control;
- harbour breakouts;
- ice routing and information services; and

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[140] On 12 December 2003, the Prime Minister announced that the Canadian Coast Guard's marine safety policy was being transferred to Transport Canada. The purpose of this change is to provide a single point of contact for mariners dealing with marine navigation policy and related issues. During March-April 2004, the Coast Guard will be transferring responsibilities for pleasure craft safety, marine navigation services, and pollution prevention and response over to Transport Canada. This will mean the transfer of the Office of Boating Safety, the regulatory and policy elements of the Environmental Protection Program, and the Canada Shipping Act Regulatory Reform Project Team. Responsibilities for navigable waters protection, including environmental assessments, are being transferred to Transport Canada.

- coordination of northern community and military re-supply.

Fleet Management:

- the acquisition, life-cycle support and national coordination of the Coast Guard vessel and air fleets in support of CG business lines, Fisheries Management, Science and Hydrography, and in support of other government departments, including: RCMP, EC, and DND.

Within the Maritimes Region, Coast Guard program delivery is coordinated through the Regional Operations Centre (ROC) in Dartmouth at the Bedford Institute of Oceanography. The ROC schedules, deploys and tracks resources in accordance with program priorities, as well as providing a focal point for alerting appropriate response agencies to marine emergencies, such as the Rescue Coordination Centre, and/or coordinating responses to marine incidents. To implement each business line, the Coast Guard relies heavily on multi-tasking of its operational resources and utilizes a multi-mission design approach in its fleet and air operations.

Primary clients, stakeholders and partners for the Coast Guard include the following sectors/groups: fishing; shipping and marine commerce; oceans technology industry; recreational boaters; offshore energy; coastal communities; and other government departments, including: EC, NRCan, DND, and the RCMP. Under the rubric of marine safety and environmental protection, Coast Guard is currently involved in a number of initiatives and partnerships in support of IM. These include the following programs:

- Community Action Partnership Program
- Sable Island Conservation Management
- Emergency Response
- Marine Pollution and Pollution Control
- Office of Boating Safety and
- Integrated Port Management

The Coast Guard Business Plan (1998/99–2000/1) identifies its primary and secondary roles, according to its five business lines, in support of DFO's oceans mandate. Direct linkages are shown between the Coast Guard mission-related objectives and business lines, and those of the broader Department. In short, Coast Guard contributes to DFO's long-term goals through its partnerships with DFO sector counterparts and through its primary role of ensuring the safe and environmentally responsible use of Canada's waterways.

DFO's Science Components

Input from Science will be crucial for the effective development and implementation of Integrated Management Plans, as well as providing important monitoring and feedback information to decision-makers. All components of DFO Science – Fisheries and Oceans Science and Environmental Science – will be involved in the ESSIM process. The Bedford Institute of Oceanography will provide the centralized science base for the ESSIM Initiative.

In the context of Integrated Management, the Department's Science components will provide critical input in the application of the ecosystem approach to oceans and coastal management. This will entail the identification and definition of ecosystem features and conservation objectives for IM Plans, including the following factors:

- Maintenance of biodiversity, including genetic diversity and endangered species;
- Maintenance of habitat productivity, including directly impacted species, ecologically dependent species, and trophic level considerations;
- Development of the precautionary approach to deal with risk and uncertainty at the ecosystem level;
- Definition of ecoregions and sub-units;
- Development of ecosystem objectives and indicators;
- Identification of ecologically significant areas;
- Understanding of cause and effect between ocean use and observed ecosystem changes; and
- Appropriate regulatory tools, monitoring needs and performance measurements.

Fisheries and Oceans Science: The primary objective of Fisheries and Oceans Science is to provide fisheries management, industry stakeholders, and other clients with a reliable scientific basis and stock assessments for the conservation of marine, anadromous and freshwater fisheries resources. This component is also involved in sustainable aquaculture development, and the provision of scientific/oceanographic information on marine and freshwater ecosystems in support of environment and fish habitat management, integrated resource management, offshore development, climate prediction, marine services, coastal engineering and marine transportation, including defence activities.

Marine Environmental Science: The Marine Environmental Sciences Division is responsible for delivery of the Maritimes Region component of DFO's Environmental Science Program. The primary mandate of this program is to provide advice and generate new knowledge on the impacts of human activities on fish and fish habitat. In addition the program is responsible for conducting research on the fate, distribution and biological effects of contaminants in the marine environment.

Hydrography: The primary objective of the Canadian Hydrographic Service (CHS) is to develop and provide nautical information products for safe and efficient navigation in Canadian and adjacent international waters. One of the key activities for CHS is the modernization of charts for Canada's navigable waters to meet the increasing operational, safety, and business requirements of commercial shipping, the cruise ship industry, recreational boating, the fishing industry, maritime defence, and offshore industry, e.g., oil and gas, marine minerals. CHS also provides direct support to seabed mapping and classification for a number of federal departments and agencies, and supports the transfer of marine technology for the development of expertise in Canadian industry to become national and international world leaders. An Order-In-Council specifies that territorial limit baselines are to be based on positions of points of land as shown on CHS charts as the official document.

Fisheries Management

Given the importance of fisheries to the Maritimes Region, Fisheries Management will have significant involvement in IM through its activities of resource management, licensing, conservation and protection, aboriginal affairs, and international affairs. In regulating the licensing for commercial fishing, Fisheries Management relies on a system of "core" designation within the *Commercial Fisheries Licensing for Eastern Canada 1996.*[141] This system limits participation and entry in the less-than-65-feet sector to individuals who meet certain criteria so that the total number of core fishermen or participants in a fishery remains the same. To qualify as a member of the core group, a licence holder was required, as of 20 December 1995, to meet the following four criteria:

- To be the head of an enterprise;
- To hold key licences (or, for some Scotia-Fundy fishers, a vessel-based licence);
- To have an attachment to the fishery; and
- To be dependent on the fishery.

To meet its primary objective of ensuring the sustainability of Canada's fisheries resources, Fisheries Management is pursuing a number of strategies:

- Manage fisheries and fish habitat to conserve and protect stock abundance, restore depleted stocks, and maintain biological diversity through the establishment of Integrated Fisheries Management Plans for all major fisheries.
- Respect Aboriginal and treaty rights in the formulation and implementation of fisheries management policies and plans.
- Manage fisheries to contribute to an economically and environmentally sustainable, self-reliant, equitable industry, including the application of co-management concepts and arrangements.
- Advance and protect Canada's sovereignty and international fisheries interests, including transboundary and migratory species.

In the context of Integrated Management, Fisheries Management pledges to actively participate and support oceans management initiatives in Canada, develop and apply precautionary and ecosystem approaches to fisheries management, as well as contribute through Integrated Fisheries Management Plans. See *The Management of Fisheries on Canada's Atlantic Coast: A Discussion Document on Policy Direction and Principles*[142] for further details on the various plans and initiatives of Fisheries Management.

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[141] *Commercial Fisheries Licensing Policy for Eastern Canada 1996*, online at: <http://www.ncr.dfo.ca/communic/lic_pol/index_e.htm> (date accessed: 2 August 2002).

[142] *The Management of Fisheries on Canada's Atlantic Coast A Discussion Document on Policy Direction and Principles*, February 2001, online at: <http://www.ncr.dfo.ca/afpr-rppa/home_e.htm> (date accessed: 2 August 2002).

Fisheries Policies

Several policies and agreements pertain to the management of Atlantic fisheries. Under the Atlantic Fisheries Policy Review, a consolidated list of key policies was compiled in the document *Fisheries Management Policies on Canada's Atlantic Coast*.[143] For more details the reader is directed to this document, which categorizes and summarizes policies relating to:

- ***Allocation and Access*** e.g., Foreign Fishing Relations Policy, Commercial Fisheries Licensing Policy for Eastern Canada, New Emerging Fisheries Policy, Quota Management, Resource Sharing Policy, Sector Management Policy;

- ***Other Fisheries Management Policies*** e.g., Aboriginal Fisheries Strategy, Atlantic Dockside Monitoring Program, Canada's Policy for Recreational Fisheries, Co-Management Approach, Policy on User Charging, Direct Sales of Fish to Foreign Vessels in Atlantic Canada;

- ***Oceans Use*** e.g., Canada's *Oceans Act*, DFO Policy on Sustainable Development and Sustainable Development Strategy 2001–2003, Federal Aquaculture Development Strategy, Federal Public Investment for Primary Fish Processing Activities (Policy Statement), Management of Fish Habitat, Marine Protected Areas Program Policy;

- ***Related Agreements/Organizations (International)*** e.g., United Nations Fish Stocks Agreement, Northwest Atlantic Fisheries Organization, International Commission for the Conservation of Atlantic Tunas, North Atlantic Salmon Conservation Organization;

- ***Related Agreements/Organizations (Canadian)*** Agreement on Inter-jurisdictional Cooperation, Nunavut Wildlife Management Board; and

- ***Industry-developed Policies*** e.g., Canadian Code of Conduct for Responsible Fishing Operations, Industry Professionalization.

Fisheries Resource Conservation Council

The Fisheries Resource Conservation Council was established in 1992 by the federal Minister of Fisheries and Oceans. The FRCC is a single-sectoral management body, consisting of 14 members representing the government, the scientific community and direct stakeholders in the Atlantic and Eastern Arctic fisheries.[144] The mandate of the FRCC is to contribute to the sustainable management of the fisheries by advising the Minister on conservation requirements for fish stocks. The FRCC consults with the fishing industry on an annual basis and provides advice to the Minister on the recommended level of harvest for various groundfish stocks in

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[143] *Fisheries Management Policies on Canada's Atlantic Coast: A summary of policies, acts and agreements in effect on September 30, 2001 that pertain to the management of the fisheries on Canada's Atlantic Coast*, available online: <http://www.ncr.dfo.ca/afpr-rppa/Linksto_FM_Policies_e.htm> (date accessed: 7 August 2002).

[144] See section 5 of Fisheries Resource Conservation Council web site: <http://www.ncr.dfo.ca/frcc/fisheries/append1/index.html> (date accessed: 2 August 2002) for FRCC Mandate and Membership.

Atlantic Canada. The FRCC provides its recommendations following the release of annual Stock Status Reports by DFO scientists and a broad-based industry consultation process on scientific and conservation measures required for each groundfish stock. DFO's Regional Advisory Process provides peer review of the Stock Status Reports and reviews the technical analysis relating to habitat and fisheries management issues.

FRCC recommendations and the previous years' management measures are reviewed by DFO Headquarters with the aim of developing management options for the upcoming year. Management options are discussed with client groups and the provincial government regarding scientific advice, quota allocations, seasons, gear restrictions and other management initiatives, prior to the finalization of the Integrated Atlantic Groundfish Management Plan. This Plan provides an integrated view of the groundfish fishery, including the latest scientific assessment, management measures, conservation and protection strategies and industry responsibilities with regard to conservation of groundfish stocks. Following ministerial approval of the Plan, additional meetings with industry groups are held to develop Conservation Harvesting Plans. DFO is endeavouring to manage groundfish resources on an area basis, attempting to reflect an ecosystem approach.

The FRCC seeks to integrate the environmental concerns arising from the fishing industry through its Environment and Ecology Subcommittee and Gear Technology Subcommittee.

In May 2001, Fisheries and Oceans Canada announced that a Marine Recreational Licence may be introduced for groundfish in Newfoundland and Labrador and eventually throughout Atlantic Canada, following consultation.[145] This licensing system responds to the concerns of the FRCC, which has recommended better control on the management of the recreational groundfish fishery in Newfoundland and Labrador.[146] See the discussion on the regulation of "Recreation, Culture and Tourism" Section 3.2.8 for further details.

Integrated Fishery Management Plan (IFMP) Process: Five-step IFMP Planning Cycle

All directed fisheries on the Eastern Scotian Shelf have multi-year Integrated Fishery Management Plans (IFMPs). The IFMPs are based on peer-reviewed scientific advice through the DFO Regional Advisory Process and subsequent consultations within the Department, with licence holders and the advisory committees, as well as public fora with representation from the provincial government and First Nations. The term "integrated" in IFMP refers to intra-departmental rather than intersectoral integration, and relates to the inclusion of, for example, scientists, surveillance staff, economists, and resource managers in the plan's development. In addition to the fishery control in the *Fisheries Act* and its regulations, other controls may be included in the IFMP and must be adhered to by industry.

The generic process for the development of IFMPs is as follows:

- Development of management objectives and management options;

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[145] Fisheries and Oceans Canada, "Proposal for an Atlantic Marine Recreational Fishing Licence Program," online at: <http://www.ncr.dfo.ca/communic/fish_man/proatlrecfis/prop_e.htm> (date accessed: 2 August 2002).
[146] *Ibid.*

- Consultation with external contributors;
- Finalization and approval of plan after consultations;
- Implementation; and
- Annual Review.

Where there are no IFMPs in place, the default governance structure is found in the DFO "policy book."

One of the most promising developments leading to integration in fisheries management is the implementation of Joint Project Agreements (JPAs), a fisheries co-management tool. JPAs set out cooperative management activities for DFO and resource users and are negotiated in conjunction with the IFMP. The JPA provides more formal involvement in activities associated with the operation of the fishery by setting the roles and responsibilities of DFO and the parties with respect to a particular project in areas such as Science and Resource Management, and can include sharing of financial responsibilities. The parties to the JPA are legally bound to the terms and conditions for the term of the agreement.

For the Eastern Scotian Shelf, JPAs exist for the shrimp fishery, the exploratory offshore lobster fishery in area 4W, and one may be developed for the snow crab fishery.

Legislative Framework for the Department

DFO executes its oceans-related mandate within a broad legislative and regulatory framework. In the context of coastal and oceans IM, the following statutes are of primary importance:

- *Canada Shipping Act*, R.S.C. 1985, c. S-9 (responsibility is shared with the Minister of Transport);
- *Coastal Fisheries Protection Act*, R.S.C. 1985, c. C-33;
- *Department of Fisheries and Oceans Act*, R.S.C. 1985, c. F-15;
- *Fisheries Act*, R.S.C. 1985, c. F-14;
- *Fishing and Recreational Harbours Act,* R.S.C. 1985, c. F-24;
- *Oceans Act*, S.C. 1996, c. 31;
- *National Energy Board Act*, R.S.C. 1985, c. N-7 (limited powers in relation to Section 108 of this Act); and
- *Resources and Technical Surveys Act*, R.S.C., 1985, c. R-7 (similar powers exist in the *Oceans Act*).

The Department also operates through an extensive list of Regulations, see *Fisheries and Oceans 1999–2000 Estimates: A Report on Plans and Priorities* for listing.

3.2.2.3 Nova Scotia Department of Agriculture and Fisheries

The Nova Scotia Department of Agriculture and Fisheries works in conjunction with DFO to manage marine living resources in Nova Scotia's coastal waters. There are important interactions between provincial and federal jurisdictions in the coastal zone that require careful management and cooperation. To facilitate this, the Province of Nova Scotia shares several MOUs and agreements with DFO:

- *1995 General Fisheries Agreement*;
- *1995 Canada-Nova Scotia MOU on Aquaculture Development*; and
- *1995 Canada-Nova Scotia Agreement on the Atlantic Fishers Early Retirement Program.*

In addition to cooperation on fisheries matters, in 1994, the Department worked with the Nova Scotia Department of the Environment and the Nova Scotia Land Use Planning Committee, as well as several other provincial agencies, in developing Coastal 2000 – a consultation process for coastal resource planning and environmental sustainability in Nova Scotia. The Coastal 2000 initiative has not been implemented.

3.2.2.4 Sectoral Concerns

The emergence of invertebrate fisheries on the eastern Scotian Shelf has increased significantly since the mid-1990s. Abundant shrimp, snow crab, lobster and surf clams have supplanted the once traditionally lucrative but collapsed groundfish stocks that failed to recover in the 1990s despite a moratorium on commercial fishing. This suggests that trophic structure changes in the eastern Scotian Shelf ecosystem have occurred that favour the abundance of certain invertebrates and small pelagics over demersal fish. Multidisciplinary and ecosystem-based research approaches are necessary to understand these dramatic changes.

3.2.2.5 Intersectoral Conflicts

There have been conflicts between the fisheries and other marine use sectors in the eastern Scotian Shelf, including marine conservation and protection, submarine cables, oil and gas, and research (e.g., weather buoys).

3.2.2.6 Intersectoral Coordination and Memoranda of Understanding

There have been a number of MOUs related to fisheries concluded between and among departments and the fishing industry and other government departments and agencies. They include:

- DFO and RCMP;
- DFO and DND;
- DFO and TSB;
- Nova Scotia Dept. of Agriculture and Fisheries (known at the time of signature as Dept. of Fisheries and Aquaculture), Nova Scotia Department of Environment and Labour, DFO, Environment Canada, CCG and Health Canada;
- Nova Scotia Dept. of Agriculture and Fisheries (known at the time of signature as Dept. of Fisheries and Aquaculture), Nova Scotia Department of Environment and Labour, DFO, and Environment Canada; and
- SOEP and the Fishing Industry.

See the chart at the end of this chapter (Table 3-2) for a summary of these MOUs.

3.2.2.7 International Integration

Two regional fisheries management organizations are of particular relevance to the Eastern Scotian Shelf—the Northwest Atlantic Fisheries Organization (NAFO) and the International Commission for the Conservation of Atlantic Tunas (ICCAT). NAFO manages straddling and discrete stocks while ICCAT manages highly migratory species (tunas or "tuna-like" fishes). Both organizations, but NAFO to a greater extent, have also adopted a number of enforcement provisions. Canada implements conservation and enforcement measures adopted by these Regional Fisheries Management Organizations through the *Coastal Fisheries Protection Act* and regulations, policies and licence conditions.

3.2.3 Marine Conservation and Protection

3.2.3.1 Key Regulatory Processes

Departments or agencies performing regulatory, advisory or research functions with respect to Marine Conservation and Protection include: the Canadian Environmental Assessment Agency, Environment Canada, Department of Canadian Heritage, Fisheries and Oceans Canada, the Nova Scotia Department of Tourism and Culture, the Nova Scotia Department of Education, and the Nova Scotia Museum. For a brief description of each agency's mandate, please refer to the descriptions found in section 3.1, under "Description of Principal Regulatory/Advisory Bodies."

The following section outlines the various processes associated with respect to marine conservation and protection activities. It also sets out the various regulatory activities of the key agencies and identifies the integration efforts, either through formal agreements, as agreed to in MOUs or informal arrangements, such as information sharing or consultation. This section details the following two key regulatory processes:

- the *Canadian Environmental Assessment Act* process as facilitated by the Canadian Environmental Assessment Agency; and
- the designation of marine conservation or protected areas by Parks Canada, under the Department of Canadian Heritage, Fisheries and Oceans Canada, the Governor in Council under the authority of the *Canada Wildlife Act*,[147] and the Nova Scotia Department of Education.

3.2.3.2 CEAA Process

The *CEAA* environmental assessment is a process (hereinafter EA process) under the *Canadian Environmental Assessment Act* (the Act) whereby "federal authorities" ensure that an assessment of the environmental effects of a "project" is carried out before a course of action to support the project, whether in whole or in part, is undertaken. These assessments are administered by the Canadian Environmental Assessment Agency (the Agency or CEAA).

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[147] *Canada Wildlife Act*, R.S.C. 1985, c. W-9, as am. S.C. 1994, c. 23.

It is important to note that since the Act underwent a five-year mandatory review pursuant to subsection 72(1) of the Act,[148] its EA process changed in 2003 to modify the comprehensive study process to prevent a second environmental assessment of a project by review panel, while extending the participant funding program to comprehensive studies. The Act provides a new use for class screening reports as a replacement for project-specific assessments and makes follow-up programs mandatory for projects after a comprehensive study or review panel.[149] The following is an overview of the *CEAA* EA process as it currently applies to the various ESSIM sectors.

The Proponent must provide a description of the activity in order to determine whether it is a "project" pursuant to the provisions of the *CEAA*. The first question is whether the proposed activity is a "project" and therefore subject to the *CEAA* environmental assessment process. A "project" is defined by the Act as an undertaking that falls within one of the following two categories. The first category of a "project" includes any proposed construction, operation, modification, decommissioning, abandonment or other undertaking in relation to that physical work" (s. 2(1), "project", paragraph (a)). The second category is defined as, "any proposed physical activity not relating to a physical work that is prescribed or is within a class of physical activities that is prescribed pursuant to regulations made under paragraph 59(b) of the Act (s. 2(1), "project," paragraph (b)). Such physical activities are prescribed by the *Inclusion List Regulations*.[150]

If the activity is a "project," as defined by the Act, the Act may apply, depending on the answers to the following three questions:

- is the project in the *Exclusion List Regulations* or otherwise excluded?
- is there a federal authority?
- is the federal EA process "triggered" by a s. 5 function?

Pursuant to paragraph 7(1)(a) of the Act, there are a number of projects excluded by the Governor in Council from the federal EA process and are listed in the *Exclusion List Regulations*.[151] These are typically projects that do not require an environmental assessment under the Act because they are understood to have insignificant effects on the environment. The Act also excludes the following projects from its application:

- those projects to be carried out in response to a national emergency for which special temporary measures are being taken under the *Emergencies Act*; or
- those projects to be carried out in response to an emergency and which must be carried out forthwith in the interest of preventing damage to property or the environment or in the interest of public health or safety (ss. 7(1)(b) and (c), Act).

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[148] Canada, Provincial and Territorial Input, *Canadian Environmental Assessment Act Five-Year Review* (April 2000) online: Canadian Environmental Assessment Agency <http://www.ceaa-acee.gc.ca/0007/index_e.htm> (date accessed: 2 August 2002).

[149] See Bill C-9, an Act to amend the Canadian Environmental Assessment Act, assented to 11 June 2003, online at: Parliament of Canada web site: <http://www.parl.gc.ca/37/1/parlbus/chambus/house/bills/government/C-19/C-19_1/C-19_cover-E.html> (date accessed: 2 August 2002).

[150] As am. 4 November 1999, SOR/99-436.

[151] SOR/99-437, as am. 4 November 1999.

The next issue to determine is whether or not there is a federal authority. Pursuant to subsection 2(1) of the Act, a "federal authority" means:

- a Minister of the Crown in right of Canada;
- an agency of the Government of Canada or other body established by or pursuant to an Act of Parliament;
- any department or departmental corporation set out in Schedule I or II of the *Financial Administration Act*; and
- any other body that is prescribed pursuant to regulations made under paragraph 59(3).

For the purposes of this overview, the key government agencies that are most likely to be federal authorities include:

- the CNSOPB;
- the NEB;
- DFO-Habitat Management and DFO-CCG;
- Environment Canada; and
- Industry Canada.

The EA process as set out in the Act is only triggered when a federal authority performs one or more of the following functions in relation to a project:

- proposes the project (s. 5(1)(a));
- grants some form of financial assistance to the project (s. 5(1)(b));
- provides an interest in land to enable the project to be carried out (s. 5(1)c)); or
- exercises a regulatory duty in respect of the project and that regulatory duty is specified in the *Law List Regulations*[152] (s. 5(1)(d)).

Pursuant to paragraph 59(f), the Governor in Council set out the *Law List Regulations*, prescribing provisions of Acts of Parliament and regulations made pursuant to any such Act that confer powers, duties or functions on federal authorities or on the Governor in Council, the exercise of which require a federal EA. The following is a non-exhaustive list of the Law List triggers most likely to apply to ESSIM sector activities:

- *Canadian Environmental Protection Act, 1999* – s. 127(1), (formerly ss. 71(1) and 72(4) of *CEPA*): Environment Canada's disposal at sea permitting process;
- *Fisheries Act* – s. 35(2): DFO's HADD approval process;
- *National Energy Board Act* – s. 108: NEB's transboundary pipeline authorization process;
- *Navigable Waters Protection Act* – s. 5(1)(a): DFO-CCG's *NWPA* approval process; and
- *Radiocommunication Act* – s. 5(1)(f): Industry Canada's licensing process for the construction of communication towers.

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[152] S. 5(1), Act and *Law List Regulations*, SOR/99-330 and SOR/99-438, as am. 28 July 1999 and 4 November 1999.

Once the Proponent applies to one of the above federal authorities for an authorization, or when it is inevitable that an authorization or permit on the Law List will be required to allow the project to proceed in whole or in part, the appropriate federal authorities will become Responsible Authorities and will be required to ensure that an environmental assessment is carried out.

Where there is no "trigger," the Minister has the discretionary power to refer the project to a mediator or review panel, as described below, in the following circumstances:

- where the Minister is of the opinion that the project may cause significant adverse environmental effects in another province (s. 46(1), Act);
- where the Minister or the Minister of Foreign Affairs is of the opinion that the project may cause significant adverse environmental effects occurring both outside Canada and outside those federal lands, (s. 47(1), Act); and
- where the Minister is of the opinion that the project may cause significant adverse environmental effects on native lands (s. 48(1), Act).

At subsection 55(1), the Act also requires that a public registry be established and operated by the RA or the CEAA Agency, as appropriate, in a manner to ensure convenient public access to the registry in respect of every project for which an environmental assessment is conducted. The public registry is maintained throughout the EA process.

Once the Responsible Authorities and expert departments have been identified, the type of environmental assessment is determined. The four types of environmental assessment include: screening, comprehensive study, mediation or panel review. It is important to note that once undertaken, the RA may delegate to any person, body or jurisdiction any part of the comprehensive study or screening or a project or the preparation of the comprehensive study report or screening report, with the exception of decision-making pursuant to s. 20(1) or 37(1) (s. 17(1), *CEAA*).

Screenings are self-directed processes carried out in accordance with section 18 of the Act. In practice, RAs have frequently decided to allow the Proponent's environmental impact statement to serve as the screening document to be evaluated by the Responsible Authorities and, if appropriate, the public. Scoping is the responsibility of RA(s) and must be agreed to by the RA(s). Where the Responsible Authorities are of the opinion that the information provided is not adequate to enable them to take a course of action, they shall ensure that any necessary studies and information are undertaken or collected (s. 18(2), *CEAA*). As screenings are self-directed assessments, the Responsible Authorities have some discretion in determining how the assessment will be conducted, such as the extent to which public participation will be required (s. 18(3), *CEAA*).

Since 1996, CEAA has worked with other departments, agencies and other industry or environmental groups to promote the class screening concept and to provide advice and assistance in developing model reports, pursuant to section 19 of the Act. Class screenings are appropriate for projects that are repetitive in nature and whose environmental effects are known.

Pursuant to subsection 59(d) of the Act, the Governor in Council has prescribed projects and classes of projects for which a comprehensive study is required in the *Comprehensive Study List Regulations*.[153] These are typically large or complex projects that are likely to cause significant adverse environmental effects. Public participation in comprehensive studies is mandatory only after the comprehensive study report has been completed, when the Agency invites the public to review and comment on the report (s. 22(1), Act). However, the Agency encourages RAs to involve the public early in the process. This participation has taken the form of public meetings, open houses, advisory committees, workshops, community liaison office and site visits.

The Agency, on behalf of the Minister of the Environment, is responsible for managing the review-and-comment period after the submission of the comprehensive study report. The Agency typically has provided a comment period for a minimum of 30 days, though the period has been as long as 60 days and, as low as 15 days (following a previous 30-day review period held by a provincial government). Once the Agency receives comments from the public, it may, if appropriate, require the Proponent or RA to address issues raised by the public. After these comments are addressed, the Agency prepares a report, making recommendations to the Minister, who makes the final determination.

Once the screening or comprehensive study has been completed, the Responsible Authorities / Minister of the Environment must determine whether the effects are acceptable or not, and whether further assessment is needed (ss. 16(1)(a) to (e), Act). Subsection 28(1) of the Act provides the Minister with discretionary powers to require further assessment, including mediation or a review panel.

As of 2004, there have been 23 projects that have been, or are presently, under review by a panel, pursuant to sections 33 through 35 of the *CEAA*. The majority of these reviews were performed jointly, either by combining the federal process with that of a provincial jurisdiction, or by combining it with another federal review process, such as that of the NEB. At the end of the panel review process, a report must be prepared by the panel for review by the Minister who makes the report available to the public (s. 36).

The formal mediation process, as set out under sections 29 through 32 of the Act, has yet to be used in an environmental assessment. However, mediation and other alternate dispute resolution methods have been used by the Agency, Responsible Authorities and interested parties on an informal basis in several environmental assessments. At the end of the mediation process, a report must be prepared by the mediator for ministerial review and released to the public.

Following a positive determination by a Responsible Authority or the Minister to take action to allow the project to be carried out, the project may proceed with mitigation measures implemented, as appropriate (s. 37(2), Act). Furthermore, they may design any follow-up program that they consider appropriate for the project and arrange for the implementation of that program (s. 38(1), Act). Pursuant to subsection 17(1) of the Act, RAs may delegate any part of the design and implementation of a follow-up program, but may not delegate the duty to take a course of action.

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[153] SOR/94-638, as am. SOR/99-439.

3.2.3.3 Designation of Marine Conservation / Protected Areas

There are a number of departments and agencies involved in the designation of marine conservation or protected areas. First, Parks Canada, recently transferred to Environment Canada, is mandated to create National Marine Conservation Areas (NMCAs) to respond to the needs for marine area management, including critical marine ecosystem/habitats and submerged cultural resources.[154] Currently, plans are underway to formalize the Department's powers to designate NMCAs through legislation – the *Canada National Marine Conservation Areas Act.*[155] Under the *Oceans Act*, the Minister of Fisheries and Oceans can establish "marine protected areas." Additionally, Environment Canada can establish "national wildlife areas" or "marine wildlife areas" under the *Canada Wildlife Act*, as well as "migratory bird sanctuaries" under the *Migratory Birds Convention Act.* Fisheries and Oceans Canada is required to coordinate the development of a federal MPA network.

NMCAs are intended to conserve representative examples of Canada's 29 marine environments in coastal zones and the Great Lakes. Policy direction for the program was first provided in 1986 with the release of the *National Marine Parks Policy*. In 1994, Parks Canada released and tabled in a Parliament document entitled *Guiding Principles and Operational Policies*. Parks Canada quickly followed this in 1995 with the release of the National Marine Conservation Areas System Plan, *Sea to Sea to Sea*, which summarized the characteristics of the 29 marine areas identified. In 1996, Parks Canada released a discussion paper entitled *Charting the Course – Towards a Marine Conservation Program.*

The change of the name "marine park" to "marine conservation area" reflects a realization that national marine conservation areas are not simply "parks in the water." Marine conservation areas involve a partnership between several federal departments.

Generally speaking, however, Fisheries and Oceans Canada and Environment Canada focus on addressing a specific need to resolve particular resource management problems, whereas the Parks Canada program is intended to provide a representative sampling of the various marine environments found in Canada's oceans and the Great Lakes. Unlike national parks, whose resources are fully protected, marine conservation areas are managed for sustainable use and there is a focus on recreation, tourism, education and research.

The *Canada National Marine Conservation Areas Act* allows Parks Canada to implement the national marine conservation areas strategy. Currently, federal-provincial agreements are either in place or under consideration for four parks representing 5 of the 29 marine regions: Gwaii

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[154] See Department of Canadian Heritage, "Guiding Principles and Operational Policies" (Hull: Minister of Supply & Services Canada, 1994). This document is found online at the Parks Canada web site: <http://www.parcscanada.gc.ca/library/PC_Guiding_Principles/Park1_e.htm> (date accessed: 6 August 2002).

[155] See Bill C-10, An Act Respecting Marine Conservation Areas of Canada, online at: <http://www.parl.gc.ca/common/Bills_ls.asp?lang=E&Parl=37&Ses=1&ls=C10&source=Bills_House_Government> (date accessed: 2 August 2002). Bill C-10 was given Royal Assent on 13 June 2002.

Haanas (Queen Charlotte Shelf and the Hecate Strait marine regions); Fathom Five (Georgian Bay region); Lake Superior region (proposed); and Southern Strait of Georgia (proposed, Strait of Georgia region). The Saguenay-St. Lawrence Marine Park represents a sixth region (St. Lawrence Estuary), but is not affected by the passage of the *Canada National Marine Conservation Areas Act* because the park is governed by separate legislation passed in 1997.

In addition to NMCAs, Parks Canada contributes to the protection of coastal and ocean environments through the management of 17 coastal national parks, as well as marine-related national historic sites on both coasts.

Next, Fisheries and Oceans Canada may designate marine protected areas (MPAs)[156] pursuant to section 35 of the *Oceans Act*. A Marine Protected Area is an area of the sea that forms part of the internal waters of Canada, the territorial sea of Canada or the exclusive economic zone of Canada and has been designated under this section for special protection for one or more of the following reasons:

- the conservation and protection of commercial and non-commercial fishery resources, including marine mammals, and their habitats;
- the conservation and protection of endangered or threatened marine species, and their habitats;
- the conservation and protection of unique habitats;
- the conservation and protection of marine areas of high biodiversity or biological productivity; and
- the conservation and protection of any other marine resource or habitat as is necessary to fulfil the mandate of the Minister.

A third way to create a federally protected marine area comes under the mandate of the Canadian Wildlife Service of Environment Canada. In subsection 4.1(1) of the *Canada Wildlife Act*, the Governor in Council may designate protected marine areas up to 200 NM from Canadian coastal baselines to protect wildlife and their habitats.

Finally, the Nova Scotia Minister of Education is mandated under the Special Places Protection Act,[157] to designate, with the approval of the Governor in Council, "any land within the Province, including land covered with water that has outstanding archaeological, historical or palaeontological significance as a protected site."[158] A description of the designated land must be deposited in the registry of deeds or the registration district in which the land is situated and every designation of a protected site must be published in one edition of the Royal Gazette and the effective date of such designation shall be the date of the publication of the aforesaid designation in the Royal Gazette.[159]

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[156] For example, The Gully, a large, deep submarine canyon on the eastern Scotian Shelf near Sable Island was designated as an MPA in May 2004.

[157] *Special Places Protection Act*, R.S.N.S. 1989, c. 438, as am. S.N.S. 1990, c. 45 and S.N.S. 1994-95, c. 17.

[158] *Special Places Protection Act*, *ibid.*, subsection 7(1).

[159] *Special Places Protection Act*, *ibid.*, subsections 7(2) and 7(2A).

Where it appears to the Advisory Committee on the Protection of Special Places that the continued designation of a protected site is inappropriate, the Committee may recommend to the Minister that the designation be terminated.[160] However, before making a recommendation to terminate designation, the Committee must give notice of the proposed recommendation in a newspaper circulating in the Province giving at least thirty days or receipt by the Committee of written submissions by the public.[161]

3.2.3.4 General Marine Conservation and Protection Initiatives

The Species at Risk Act (SARA) was proclaimed on 5 June 2003.[162] Fisheries and Oceans Canada has a key role regarding species at risk in the offshore. As of June 2004, there are new responsibilities for listed species. The Act is the first federal piece of legislation dealing with the listing, protection and recovery of endangered species and other species at risk within federal jurisdiction. The Act is described as one part of a three-pronged federal strategy to protect species at risk, the other two components being stewardship and incentive programs, and the federal/ provincial/ territorial *Accord for the Protection of Species at Risk.*[163] The Act creates a legislative base for the scientific body that assesses the status of species at risk in Canada, the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). It prohibits the killing of extirpated, endangered or threatened species and the destruction of their residences, and provides authority to prohibit the destruction of the critical habitat of a listed wildlife species anywhere in Canada. The listing of species at risk leads to automatic recovery planning and action plans. The Act further provides emergency authority to protect species in imminent danger, including emergency authority to prohibit the destruction of the critical habitat of such species. Funding and incentives for stewardship and conservation is available. The Act recognizes that compensation may be needed to ensure fairness following the imposition of the critical habitat prohibitions.

There are a number of federal policies addressing the protection of flora and fauna, including marine life. These include:

- *Wild Species 2000: The General Status of Species in Canada*;[164]
- the 1995 *Canadian Biodiversity Strategy: Canada's Response to the Convention on Biological Diversity*;[165] and
- the 1998 *Conserving Wildlife Diversity: Implementing the Canadian Biodiversity Strategy*.[166]

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[160] *Special Places Protection Act, ibid.*, subsections 5(1) and 7A(1).

[161] *Special Places Protection Act, ibid.*, subsection 7A(2).

[162] Online at: <http://www.parl.gc.ca/37/2/parlbus/chambus/house/bills/government/C-5/C-5_4/C-5_cover-E.html> (date accessed: 8 July 2003).

[163] Accord online at: <http://www.speciesatrisk.gc.ca/sar/strategy/accord_e.htm>.

[164] See online at: <http://www.wildspecies.ca/en/Home_E.html> (date accessed: 2 August 2002).

[165] Environment Canada, Biodiversity Convention Office, *Canadian Biodiversity Strategy: Canada's Response to the Convention on Biological Diversity* (Hull: Minister of Supply and Services Canada, 1995).

[166] Environment Canada, Biodiversity Convention Office, *Conserving Wildlife Diversity: Implementing the Canadian Biodiversity Strategy* (Hull: Minister of Supply and Services Canada, 1998).

Fisheries and Oceans Canada is leading the development of a deep-sea corals conservation strategy that is expected to be drafted and consulted upon in 2004.

A general marine conservation and protection initiative is found in Environment Canada's mandate: to foster the development of a national capacity for sustainable development, in cooperation with all levels of government, the private sector, and the public, to ensure a safe, healthy environment and sound, prosperous economy. Environment Canada (EC) is a science-based federal department with legislated mandates in the offshore with respect to the following areas:

- protection of migratory birds and migratory bird sanctuaries, such as Sable Island (*Migratory Birds Convention Act, 1994*);[167]
- administration of the pollution prevention provisions with respect to waters frequented by fish (*Fisheries Act*);[168]
- protection of endangered species (*Canada Wildlife Act* and federal Species at Risk Bill);[169]
- regulation of ocean disposal by the issuance of permits (*Canadian Environmental Protection Act, 1999)*;[170]
- provision of accurate information of weather, sea-states and ice movement;
- support for other federal regulators (such as CEAA and DFO-HMD);
- environmental emergencies; and
- environmental assessments.

The three main branches of Environment Canada which administer legislation relating to the oceans are:

Environmental Protection Branch

- *Canadian Environmental Protection Act*, 1999
- *Fisheries Act, Section 36*

Environmental Conservation Branch

- *Canada Wildlife Act*, 1973–74 (covers National Wildlife Areas)
- Wildlife Area Regulations
- *Migratory Birds Convention Act*, 1994
- Migratory Bird Sanctuary Regulations
- Migratory Bird Hunting Regulations
- Migratory Birds Convention, 1916
- *Game Export Act*, 1970
- *Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act* (WAPPRIITA), 1992

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[167] S.C. 1994, c. 22.

[168] R.S.C. 1985, c. F-14, ss. 36-42.

[169] R.S.C. 1985, c. W-9, as am. S.C. 1994, c. 23.

[170] S.C. 1999, c. 33.

- *International Rivers Improvement Act* (IRIA), 1970
- *Canada Water Act* (covers Flood Damage Reduction Agreements and Federal Water Policy) and
- Federal Wetlands Policy.

Atmospheric Environment Branch

- *Weather Modification Information Act, 1970–71–72*

3.2.3.5 Sectoral Concerns

There has been some progress on the development and implementation of Marine Protected Areas in the region, e.g., The Gully Marine Protected Area, designated in May 2004. The application of some laws in the offshore is difficult, e.g., *Navigable Waters Protection Act.* Concerns have been raised about the ability to protect conservation areas when the oil and gas licensing process pre-empts MPA and Integrated Management-related processes.

3.2.3.6 Intersectoral Conflicts

There has been some evidence of intersectoral coordination issues relating to activities for marine conservation and protection, especially with respect to shipping. Environment Canada and Transport Canada are in the process of addressing coordination requirements relating to investigations and prosecutions of polluters contravening the *Canada Shipping Act* and *Migratory Birds Convention Act.*

Also, the designation of NMCAs, MPAs and Special Places could cause conflicts with other sectors as such designations could limit the use of a marine area.

3.2.3.7 Intersectoral Coordination and Memoranda of Understanding

CEAA Process

The CEAA process inherently requires the coordination of the affected departments and agencies, either as a Responsible Authority or an expert department providing advice. In particular, the *Regulations Respecting the Coordination by Federal Authorities of Environmental Assessment Procedures and Requirements (Federal Coordination Regulations*)[171] seek to ensure that the federal EA process is timely and predictable, and that only one federal EA is conducted for a project. For projects where there is no responsible authority identified at the outset, the following process may occur, pursuant to the *Federal Coordination Regulations*. The Proponent may submit the project description to the Agency, or any other federal authority which, in turn, sends out the description to potentially interested federal authorities, and these federal authorities indicate whether they:

- are likely to be an RA;

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[171] SOR/97-181.

- are not likely to be an RA; or
- need more information (ss. 3–4, Regulations).

Once the RA is identified, it will send notice of the project description to other federal authorities and departments who may be RAs or who may provide expert advice on the environmental effects of the project. Where there are two or more responsible authorities in relation to a project, they shall together determine the manner in which to perform their duties and functions, pursuant to the Act and regulations (ss. 12(1)). In particular, the *Federal Coordination Regulations* cited above require that each RA carry out its duties "in a coordinated manner with a view to eliminating unnecessary duplication in the environmental assessment process."

General Marine Conservation and Protection Initiatives

Environment Canada's marine conservation and protection initiatives include many coordination and integration opportunities. They are listed under the relevant branch:

Environmental Protection Branch

- Coordination with the National Energy Board (NEB) and Canada-Nova Scotia Offshore Petroleum Board (CNSOPB) in offshore oil and gas regulatory and environmental planning. As part of this, Environment Canada participates on the Environmental Coordinating Committee of CNSOPB and the Canadian Environmental Committee for Petroleum Activities established by the NEB. EC involvement (coordinated through the Environmental Assessment Section) also includes: the development of environmental guidelines, such as waste disposal; review and input to offshore Environmental Monitoring Programs; contingency planning and spill response; environmental assessments; and pollution prevention activities.

- Development and implementation of the 1995–96 National Program of Action for the Protection of the Marine Environment from Land-Based Activities. EC has the lead with respect to land-based sources of pollution, while DFO has the lead role for integrated management in Canada's coastal and marine waters.

- The Environmental Emergencies Section (EES) is a primary resource for the provision of scientific and technical advice to the lead agency in the event of environmental emergencies. EES maintains a historical spills/emergencies database for Atlantic Canada. EES also has developed and maintains the Atlantic Region Sensitivity Mapping Program, which incorporates geo-referenced data on biological and human-use resources at-risk, coastal geomorphology, and operational information for the protection of resources and clean-up of spills.

- The EES Section Head chairs the Regional Environmental Emergencies Team (REET), which includes representatives from all environment-related federal and provincial agencies, private industry, and industry associations. REET has three main areas of responsibility: provision of consolidated environmental advice to the lead agency and responsible party/on-scene commander; planning for spill response; and operational issues during spill response.

Environmental Conservation Branch/Canadian Wildlife Service

- Oversight of the Atlantic Coastal Action Program (ACAP) which uses a community based, multi-stakeholder approach to restoring and conserving 13 Atlantic coastal areas, including: rivers, basins, estuaries, and harbours, through comprehensive environmental management plans.
- In cooperation with DFO and the Province of Nova Scotia, Environment Canada is in the process of developing a management regime for Sable Island. This stems from earlier work by the CWS in developing a *Sable Island Conservation Strategy* (1998) and the efforts of the Sable Island Preservation Trust (SIPT), a non-governmental organization that has managed the operational infrastructure on Sable Island under a joint agreement with Environment Canada and DFO, as well as with provincial support. In addition to the Conservation Branch/CWS, Environment Canada's Atmospheric Environment Branch is involved through its operation of an upper air weather station on the Island. The Coast Guard, which currently regulates access to the Island under the *Canada Shipping Act*, is also a key partner in the planning process. Numerous non-governmental people and groups are involved, including academics, ENGOs and the oil and gas industry. Future plans include the designation of Sable Island as an Atlantic Coastal Action Program (ACAP) site and the development of a series of agreements/arrangements among partner groups and regulators.

- The Birds Oiled at Sea Initiative is being led by CWS, in partnership with EC's Environmental Protection Branch, Foreign Affairs Canada, DFO/Coast Guard, Transport Canada's Ship Safety Branch, and Canada's Maritime Forces, to address the serious problem of seabird oiling by operational and accidental discharges from ships. The Northwest Atlantic is a major crossroads for shipping and migratory seabirds, particularly off Newfoundland. In addition, there are hazards for seabirds related to the offshore oil and gas industry on the east coast. These problems require an interdepartmental and multi-stakeholder approach to prevention, regulation, enforcement, and awareness.

Atmospheric Environment Branch

- Through the operation of an offshore weather monitoring station on Sable Island, the Atmospheric Environment Branch has acted as wardens for this critical ecosystem, and is actively involved in the emerging Sable Island management initiatives.

- The Atmospheric Environment Branch operates an offshore data buoy network to gather weather and sea-state information. The Meteorological Weather Centre (MWC) is responsible for weather and sea-state forecasting, as well as applications of the Oil Spill Tracking Model.

Environment Canada – Atlantic Region is undergoing a comprehensive review to improve effectiveness and efficiency in the delivery of its environmental enforcement mandate. There are two enforcement units in the Department: Wildlife Enforcement Section, Environmental Conservation Branch; and Pollution Enforcement Section, Environmental Protection Branch. These two enforcement units are working together to enhance cooperation in operations, training, equipment sharing, policy development, and public education. Examples of intradepartmental and interdepartmental coordination are the initiatives relating to seabird oiling by ships and offshore energy development. However, it is noted that these initiatives may be difficult to implement in practice, see above under "Intersectoral Conflicts."

Memoranda of Understanding

A number of Memoranda of Understanding have been signed between the following agencies/departments with respect to marine conservation and protection:

- Canadian Coast Guard (CCG) (when it was under Transport Canada) and Department of Environment;
- CCG (when it was under Transport Canada), CNSOPB, DFO, Energy Mines and Resources, and Department of Natural Resources;
- CCG, Environment Canada, Nova Scotia Department of Environment;
- DFO and Transport Canada;
- CCG and Environment Canada;
- DFO and Environment Canada;
- CCG, Environment Canada and DND;
- Environment Canada and Transport Canada;
- Transport Canada (Atlantic Region), DFO (CCG Newfoundland Region), and Environment Canada;
- CNSOPB, CCG, Natural Resources Canada, and Nova Scotia Department of Natural Resources;
- CNSOPB and Environment Canada; and
- Nova Scotia Department of Agriculture and Fisheries (known at the time of signature as Department of Fisheries and Aquaculture), Nova Scotia Department of Environment and Labour, DFO and Environment Canada.

See the chart at the end of this chapter (Table 3-2) for a summary of these MOUs.

Continued communications between and among the sectors affected by a designation of an NMCA, MPA or a Special Place would give other sectors lead time to prepare for the designation and pre-empt conflict.

3.2.3.8 International Integration

International integration may be enhanced if Canada coordinated its designations of MPAs and MCAs with UNESCO's World Heritage Site process, pursuant to the Convention for the Protection of the World Cultural and Natural Heritage, signed by Canada on 23 November 1972. The commitment in the Plan of Implementation on sustainable development resulting from the World Summit on Sustainable Development (WSSD) to establish a "representative network" of marine protected areas by 2012 is also a relevant consideration.

3.2.4 Marine Science and Technology

3.2.4.1 Key Regulatory Processes

Marine Science and Technology is subject to the regulatory, advisory or research functions of the Department of Foreign Affairs (hereinafter FAC), Fisheries and Oceans Canada, Natural Resources Canada, Industry Canada, Transport Canada, National Research Council, Canadian Environmental Assessment Agency, and the In*NOVA*corp. For a brief description of each agency's mandate, please refer to the descriptions found in section 3.1, under "Description of Principal Regulatory/Advisory Bodies."

The following section outlines the various processes that a proponent may undergo in order to conduct marine science and technology activities. It sets out the various regulatory activities of the key agencies and identifies the integration efforts, either through formal agreements, as agreed to in MOUs or informal arrangements, such as information sharing or consultation.

A proponent for conducting marine scientific or technological research in navigable waters must apply for an approval from the Canadian Coast Guard under subsection 5(1) of the *Navigable Waters Protection Act* (*NWPA*),[172] unless it is exempted,[173] see the discussion under "Marine Transportation" for greater detail on the subsection 5(1) *NWPA* process. An *NWPA* approval triggers an environmental assessment under the *Canadian Environmental Assessment Act* (hereinafter *CEAA*),[174] which assesses the potential effects of a specific ocean activity, see the discussion under "Marine Conservation and Protection" for further details on the *CEAA* process. The application of the *NWPA* to works between 12 and 200 NM appears to be inconsistent with its application within the 12-NM territorial sea.[175]

If the marine research or technology is carried out on the ocean floor, an authorization under subsection 35(2) of the *Fisheries Act*[176] to allow for the harmful alteration, disruption or destruction of fish habitat (hereinafter HADD) may be required, see the discussion under "Fisheries" for further details on the HADD authorization process. In cases of sub-ocean floor activity, the disposal at sea permit pursuant to subsection 127(1) of the *Canadian Environmental Protection Act, 1999*[177] may be required. As with the *NWPA* process, a *CEAA* review will be triggered if either the *Fisheries Act* or *CEPA, 1999* authorizations are required.

In terms of domestic fisheries research, DFO Fisheries Management issues experimental licenses to "take, catch or kill fish" during research fishing. Domestic marine research and technology is not subject to any specific legislation or regulation, however, an exception will be applied under the Gully MPA regulations. If the proponent wishes to receive funding for the research and technology, he/she will be required to follow the grant proposal applications as set out by the National Research Council and the In*NOVA*corp.

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[172] *Navigable Waters Protection Act*, R.S.C. 1985, c. N-22 (hereinafter *NWPA*).

[173] An exemption confirms that no navigational hazard exists or would be created, and as such no further consideration is required under the *NWPA*.

[174] *Canadian Environmental Assessment Act*, 1992, c. 37.

[175] Personal Communication from Jon Prentiss, Canadian Coast Guard, 20 July 2000.

[176] *Fisheries Act*, R.S.C 1985, c. F-14.

[177] *Canadian Environmental Protection Act, 1999*, S.C., 1999, c. 33.

The use of foreign vessels to conduct marine scientific research within waters under Canadian jurisdiction is possible through either of two processes: (1) commercial, wherein the foreign vessel must obtain a coasting trade licence, meaning a successful application for a licence, liability to pay duty, adherence to technical vessel standards, labour authorizations for any foreign crew, and meeting other governmental requirements; or (2) the sponsorship of the research by a foreign government, which can result in an exemption from the *Coasting Trade Act*.[178] For a commercial vessel under the *Coasting Trade Act*, the Canadian Transportation Agency considers the application in a publicly transparent exercise entailing contact with the Canadian private sector about the availability of Canadian ships to do the work, determination by the Canadian Transportation Agency using private sector and other government department inputs whether to recommend the application, and action by the CCRA to issue the permit and collect applicable duties. In the second scenario, a foreign government submits a diplomatic note to FAC to request Canada's consent to conduct specified marine research. The request is routed through FAC's Foreign Vessel Clearance Committee, which comprises all federal departments and agencies having a regulatory, scientific or operational interest in the proposed research. FAC solicits comments from relevant government departments/agencies to determine if the request should be granted as requested, approved subject to modifications or conditions, or rejected. Standard conditions include the sharing of all results from marine scientific research in Canadian waters, as well as the participation of Canadian scientists when appropriate and available. Fisheries and Oceans Canada, DND and NRCan and other departments are included in the consideration of all requests. Research applications for non-living resources (e.g., seismic surveys) are channelled through the two processes outlined above.

While the administrative process arising from a diplomatic request is simpler than the commercial process, any authorized foreign research vessel remains subject to a broad range of Canadian operational and navigational requirements. The Foreign Vessel Clearance Request process is common to all Canadian waters. In addition, under section 44 of the *Oceans Act*, the Minister of Fisheries and Oceans can request that FAC attach a condition to a consent under section 3(2)(c) of the *Coasting Trade Act* that a foreign ship submit the results of marine scientific research conducted in Canadian waters to Fisheries and Oceans Canada. The Minister of Fisheries and Oceans may also establish guidelines, not inconsistent with Canada's international obligations, for use by foreign ships in conducting marine scientific research in Canadian waters.

The Canadian Environmental Assessment Agency plays a key role in regulating seismic research pursuant to the *Canadian Environmental Assessment Act*. Under the coordination of the Canada-Nova Scotia Offshore Petroleum Board, environmental assessments for seismic research programs to be conducted in the Nova Scotia offshore area are reviewed in accordance with CEEA environmental review processes.

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[178] *Coasting Trade Act* 1992, c. 31.

3.2.4.2 Sectoral Concerns

There may be concerns with respect to marine research activities within Marine Protected Areas. There may also be environmental concerns regarding activities outside designated marine protected areas, e.g., The Gully MPA.

3.2.4.3 Intersectoral Conflicts

Since the early 1990s, a number of commercial submarine cables have been re-commissioned globally as "scientific cables" (none on the Scotian Shelf). The need to obtain various forms of scientific data, such as oceanographic, or seismic, has meant that a number of redundant telecommunications cables have been put back into service under new owners who are not part of the telecommunications industry. Hydrographic offices are notified that these cables are "out of service" by their original owners and, depending on state practice, are either removed from navigation charts or designated as being "out of service."[179] It is therefore becoming necessary to advise telecommunications cable owners of the status of these scientific cables to avoid damage during repairs or the installation of new cables. When planning new systems, repairing old cables or conducting cable clearance operations in the vicinity of scientific cables, information on the status of scientific cables must be obtained. It is also important that other ocean users, including the fisheries, shipping, and naval operations, are notified of the existence and positioning of scientific cables.

There has not been much evidence of intersectoral conflict with respect to the activities of marine science and technology.

3.2.4.4 Intersectoral Coordination and Memoranda of Understanding

In both domestic and international cases, the location of the scientific cable is communicated to the shipping sector through Coast Guard Notices to Mariners and on navigation charts provided by the Canadian Hydrographic Service.

To date, it appears that only one Memoranda of Understanding has been signed between or among the various sectors with respect to Marine Science and Technology. The Canadian Coast Guard and Environment Canada's Atmospheric Environment Service signed an MOU entitled "Deployment and Maintenance of Deep-Sea and Shelf Meteorological Anchored Buoys in the Northwest Atlantic" in June 1992. See the chart at the end of this chapter (Table 3-2) for a summary of this MOU.

3.2.4.5 International Integration

Canada has implemented the provisions of international instruments related to marine science and technology to which it is a party. (See section 4.0)

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[179] Out-of-service cables are not removed from CHS charts, but are changed from a continuous symbol to a broken symbol.

3.2.5 Marine Transportation

3.2.5.1 Key Regulatory Processes

The key departments or agencies regulating the Marine Transportation sector include: Transport Canada, the Canadian Coast Guard of Fisheries and Oceans Canada, Canadian Transportation Agency, Transportation Safety Board of Canada, Canada Customs and Revenue Agency, Citizenship and Immigration Canada, Human Resources Development Canada, and Environment Canada. For a brief description of each agency's mandate, please refer to the descriptions found in section 3.1, under "Description of Principal Regulatory/Advisory Bodies."

The following section outlines the various processes associated with respect to marine transportation activities. It also examines the various regulatory activities of Transport Canada and the Canadian Coast Guard, and sets out the processes involved in the inspection of domestic and foreign vessels as well as the authorizations required for foreign workers. It also identifies the integration efforts, either through formal agreements, as agreed to in MOUs or informal arrangements, such as information sharing or consultation.

3.2.5.2 Transport Canada[180]

Transport Canada (or TC) maintains a number of important services and programs related to Canada's oceans. These include: domestic and international shipping issues, the coasting trade regime, port policy, pilotage, ferry services, competitiveness, insurance and liability issues, economic regulations, and international marine activities. In addition to the national headquarters in Ottawa, TC operates through five regional offices. For Atlantic Canada, the Moncton office provides transportation policy advice and coordination, regulatory surveillance, inspection, licensing and certification, as well as compliance and enforcement activities.

Transport Canada's principal regulatory roles are described below under Marine Safety and Regulation and Ports and Ferry Service.

Marine Safety and Regulation:

Transport Canada is responsible for ship safety and ship-source pollution prevention for all commercial and fishing vessels in Canada's maritime zones. The role of TC in marine safety and regulation includes the following activities:

- Development, application and enforcement of legislation, regulations and safety standards, both national and international in scope, for the design, construction, operation and maintenance of commercial ships, mobile offshore drilling units, and other special purpose vessels;

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[180] On 12 December 2003, the Prime Minister announced that the Canadian Coast Guard's marine safety policy was being transferred to Transport Canada. The purpose of this change is to provide a single point of contact for mariners dealing with marine navigation policy and related issues. During March-April 2004, the Coast Guard will be transferring responsibilities for pleasure craft safety, marine navigation services, and pollution prevention and response over to Transport Canada. This will mean the transfer of the Office of Boating Safety, the regulatory and policy elements of the Environmental Protection Program, and the Canada Shipping Act Regulatory Reform Project Team. Responsibilities for navigable waters protection, including environmental assessments, are being transferred to Transport Canada.

- Qualification, training and examination of officers and crews of commercial vessels;
- Prevention of ship-source pollution, and the maintenance of the Ship-Source Oil Pollution Fund (hereinafter SOPF) to pay claims for pollution damage and preventive measures related to the discharge of oil from ships in Canadian waters;
- Marine occupational health and safety issues under the *Canada Shipping Act* and the *Canada Labour Code*;
- Maintenance of a registry of Canadian ships, and licensing of small commercial vessels;
- Overseeing the transportation and safety of containers transiting through Canadian Ports;
- Overseeing marine pilotage, including compulsory pilotage zones, the identification of ship classes subject to compulsory pilotage, as well as licensing and certification;
- Overseeing the transportation of dangerous goods through Canadian waters, in terms of both the prevention and the minimization of the consequences of accidents and incidents. The Canadian Transport Emergency Centre (CANUTEC) is an important preventative program that provides bilingual 24-hour chemical and regulatory information services.

Ports and Ferry Service:

- Under the 1995 National Marine Policy, Transport Canada is moving away from a direct operating role in Canada's ports. The passage of the *Canada Marine Act* provides the necessary legislative basis for the TC policy regarding Canada's ports. In March 1999, the new National Ports System was put into place with the replacement of the Port Corporations by the Port Authorities. In the ESSIM area, for example, the Halifax Harbour is now managed and operated by the Halifax Port Authority.
- Transport Canada is actively involved in the environmental assessment of new marine terminals involved in the operations of oil, ORIMULSION, LNG etc., in accordance with TERMPOL Review Process of Marine Terminal Systems and Transshipment Sites (TP 743).
- TC subsidizes private ferry services in Canada, including Bay Ferries and Marine Atlantic Inc., which operate marine ferry services throughout Atlantic Canada, including the ESSIM area.

Transport Canada operates under a variety of oceans-related Acts and Regulations. In the context of the Eastern Scotian Shelf, important pieces of legislation are as follows:

Canada Labour Act
Canada Marine Act
Canada Shipping Act, 2001
Canadian Transportation Accident Investigation and Safety Board Act
Coasting Trade Act
Department of Transport Act
Marine Liability Act
Marine Transportation Security Act
National Transportation Act
Navigable Waters Protection Act

Pilotage Act
Public Harbours and Port Facilities Act
Safe Containers Convention Act
Shipping Conference Exemptions Act
Transportation of Dangerous Goods Act

Of particular importance is the *Canada Shipping Act, 2001* (CSA, 2001) given Royal Assent on 1 November 2001. The *Canada Shipping Act* has been reorganized, updated and greatly streamlined to make it clearer and easier to understand. For example:

- Definitions have been included only when the ordinary dictionary meaning has been narrowed or expanded;
- Technical detail has been removed and will be placed in regulations, standards or other documents, to simplify the legislative framework. As well, all liability provisions have been consolidated and moved to the *Marine Liability Act*;
- Marine carriers now have the right to impose liens for amounts due under the contract of carriage, as set out in the Delivery of Goods provisions; and
- Roles and responsibilities of the Department of Transport and the Department of Fisheries and Oceans have been clarified, as outlined below.

The *CSA, 2001* aims to promote the safety and economic performance of the marine industry, as well as ensure the safety of those using pleasure craft. Key changes include improvements to provisions that protect and support crews, ensure passenger and vessel safety, and protect the marine environment from damage due to navigation and shipping activities. The Act covers a wide range of marine topics, including: safety issues (ship operations and equipment, crew certification, conditions of work, navigation, accident investigation, salvage and wreck); the environment (pollution prevention and response); and other matters (such as the protection and preservation of wrecks of heritage value). The Act would also separate and clarify the responsibilities of the two departments involved: Transport Canada, and Fisheries and Oceans Canada. Key changes from the current *CSA* would include improvements to provisions that: protect and support efficient crews; ensure passenger and vessel safety; and protect the marine environment from damage due to navigation and shipping activities.

Under the *Canada Shipping Act, 2001*, matters related to non-pleasure craft (i.e., commercial vessels) will now be the responsibility of Transport Canada. Prior to the CSA 2001, small commercial vessels were required to be licensed by Fisheries and Oceans. Under this new legislation, non-pleasure craft fall under Transport Canada's jurisdiction and will be required to register with Transport Canada.

TC will create an automated small vessel registry to improve administrative efficiencies and provide a simplified, low-cost form of registration. This registry will be tailored to the needs of small commercial vessels; those under 12 metres will not require a tonnage measurement certificate. Small commercial vessels will have to comply with the safety requirements applicable to the type of service, size of vessel and operation being conducted.

The *Canada Shipping Act, 2001* also introduces new administrative enforcement tools such as monetary penalties and assurances of compliance, while retaining the right for Transport Canada to prosecute. The use of new administrative enforcement tools is an approach commonly found in other pieces of legislation. It provides the government with an appropriate and efficient means of dealing with all ranges of infractions, from minor to serious.

The new enforcement scheme will ensure that the courts are used for only the most serious offences that produce significant consequences or where other means of securing compliance have been ineffective. In addition, the *CSA, 2001* summary and indictable penalties have been modernized to ensure that they are effective deterrents.

Key to the new enforcement scheme will be the appointment of an adjudicator, who will conduct a review of administrative decisions taken by the Minister of Transport that either impose penalties or affect the status of documents issued by the Minister. The adjudicator will be independent and have decision-making authority.

The following section addresses Transport Canada's regulatory process with respect to the issuing of a *Navigable Waters Protection Act* approval. Where development activities constitute "work" and where such work may substantially interfere with "navigable waters," a Formal Approval is required under subsection 5(1) of the *Navigable Waters Protection Act* (hereinafter *NWPA*) within 12 NM. Although the application of NWPA is limited in the offshore beyond 12 NM, it will review activities to ensure they are not a hazard to navigation.

The purpose of the *NWPA* is to protect the public right of navigation by prohibiting the building or placement of any work in, upon, over, through or across navigable waters without approval of Transport Canada. It is important to note that the subsection 5(1) of the *NWPA* does not apply to "companies," as defined by the *National Energy Board Act.*[181] For these companies, approval to construct works in navigable waters will be granted in accordance with sections 108 and 109 of the *National Energy Board Act.*

In order to determine whether such an approval is required, the Applicant is advised to consult with Transport Canada. Pursuant to the *Marine Navigation Services Navigable Waters Protection Act Application Guide*, the following information should be provided before the meeting:

- Name of applicant, and, if applicable, name of agent, address, phone number and fax number;
- Details of the Work;
- Waterlot Lease/permit; and
- Plans.

A subsection 5(1) *NWPA* Formal Approval is required if the proposal is a "work," if the work affects "navigable waters," and if the work interferes substantially with navigation.

"Work" is defined as:

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[181] R.S.C. 1985, c. N-7.

- any bridge, boom, dam, wharf, dock, pier, tunnel or pipe and the approaches or other works necessary or appurtenant thereto;
- any dumping of fill or excavation of materials from the bed of a navigable water;
- any telegraph or power cable or wire; or
- any structure, device or thing, whether similar in character to anything referred to in this definition or not, that my interfere with navigation (s.3, *NWPA*).

"Navigable water" includes:

> a canal and any other body of water created or altered as a result of the construction of any work (s. 3, *NWPA*).

Pursuant to subsection 5(2) of the *NWPA*, except in the case of a bridge, boom, dam or causeway, an approval is not required where, in the opinion of the Minister, the work does not interfere substantially with navigation. In practice, the Minister exercises a fair amount of discretion in determining whether a given project is to be dealt with under subsection 5(1) or 5(2) of the Act. If the latter is the case, the project is not considered to be obstructing navigable waters and is, therefore, offered exemption from the requirement to obtain an approval from Transport Canada.

If a subsection 5(1) *NWPA* Formal Approval is required, Transport Canada, a federal authority under the *CEAA*, is required to conduct an environmental assessment of the project pursuant to the provisions of the *CEAA*, see the description of the *CEAA* process found under "Marine Conservation and Protection."

To facilitate public involvement in the process, the Applicant is required to deposit plans and a description of work that is to be undertaken for at least one month. The deposit should be advertised in the Canada Gazette and in two newspapers published in or near the locality where the work is to be constructed (ss. 9(2) and (3), *NWPA*). Comments are invited to address the impact of the plans on navigation issues rather than environmental ones. If public concerns are sufficiently great, Transport Canada will take greater steps to seek public participation.

Following the environmental assessment under *CEAA*, Transport Canada may either take action to allow the proposal to proceed or to stop the process. If the proposal is allowed to proceed, a subsection 5(1) Formal Approval will be issued. The Minister may set terms and conditions with respect to the work to be performed (s. 5(a)). Following the issuance of the Approval, construction of the work must be commenced within six months and completed within 3 years (s. 5(1)(b)). If these timelines are not met, application may be made to the Minister for extensions (s. 5(1)(b)). Transport Canada performs follow-up checks to ensure the conditions of the subsection 5(1) *NWPA* Formal Approval have been fulfilled.

3.2.5.3 Canadian Coast Guard – DFO

The Canadian Coast Guard (hereinafter CCG) plays an important role in regulating the marine transportation sector, with duties under the new *CSA, 2001*. Under the *CSA 2001*, CCG continues its responsibility for marine communications and traffic services, marine aids to navigation, search and rescue, receiver of wreck functions and pollution prevention and response. In addition, there is new authority that will enable DFO, jointly with the Department of Canadian Heritage, to develop regulations for the protection of wrecks of heritage value in Canadian waters.

Responsibilities for pleasure craft are consolidated in one part of the *CSA, 2001*, in order to make it clearer. DFO will maintain its current responsibility for all aspects of pleasure craft, including construction standards, safety equipment requirements, safe operating practices, licensing and the discharge of sewage. The Act clarifies the respective roles of enforcement officers and pleasure craft safety inspectors in ensuring compliance with both the Act and the associated regulations.

3.2.5.4 Vessel Inspection

All vessels entering Canada, including Canadian vessels, are subject to the provisions of the Customs Tariff. In addition, foreign and non-duty paid vessels are subject to restrictions contained in the *Coasting Trade Act*.[182] The *Coasting Trade Act* reserves the coasting trade to Canadian ships and extends the jurisdiction of the coasting trade laws to include offshore development on the Canadian Continental Shelf. It also includes all commercial marine activities in addition to the carriage of passengers or goods. Foreign or non-duty paid vessels may temporarily enter the coasting trade on payment of duty, where it can be established that no suitable Canadian ship is available for a particular movement or service.

The first question to be asked is whether the vessel is a Canadian-registered or a duty paid vessel. If it is not, the Operator must obtain foreign vessel authorizations, as outlined later in this section. If it is, the domestic vessel inspection and certification processes outlined in the following sections apply.

Domestic Vessels

The Applicant must contact Transport Canada, or the CNSOPB to conduct an inspection of the vessel, as appropriate.

Applicants must provide a minimum of 24 hours notice for inspection, whether the vessel is in Canada or abroad. Transport Canada may inspect a vessel up to 40 days before it is to be used. If the results of the inspection are negative, all problems must be rectified before the vessel may be re-inspected. A Certificate will only be issued once Transport Canada re-inspects the vessel. If the results of the inspection are positive, and upon payment of the fee set out by Transport Canada's regulations, Transport Canada will certify the vessel for marine safety.

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[182] A "non-duty paid ship" means a ship registered in Canada in respect of which any duties and taxes under the *Customs Tariff* and the *Excise Tax Act* have not been paid.

If a vessel is performing standby functions, a Letter of Compliance from Transport Canada is also necessary. A Letter of Compliance will be issued upon payment of fees. These fees are based on tonnage, in accordance with the Board of Steamship Inspection Scale of Fees.

Once Transport Canada approves the marine safety of the vessel, the Operator may use the vessel, provided that he/she complies with Transport Canada's marine safety requirements. Under certain circumstances, Transport Canada may continue to inspect the vessel while the safety certification is in effect, to ensure the marine safety fitness of the vessel.

Foreign Vessel Inspection

The term "foreign vessel" is defined as a foreign-registered vessel or a Canadian-registered non-duty paid vessel. Pursuant to sections 4.(1) and 5 of the *Coasting Trade Act*,[183] and the provisions of the *Customs and Excise Offshore Application Act*,[184] the *Customs Act*[185] and the *Customs Tariff*[186] the Canadian Transportation Agency (hereinafter CTA) and Canada Customs and Revenue Agency (hereinafter CCRA) are responsible for administering a temporary admission program for vessels.

Before applying for authorization to use a foreign vessel in Canada, the Operator may ask Transport Canada and the CNSOPB for assistance in planning or scoping available vessels. The CTA's web site contains information on Canadian vessels, organized by classification.

This temporary admission program provides for short-term market needs that cannot be filled from the existing capacity in Canada. Under this program, foreign and non-duty paid vessel operators may make an application to operate such vessels temporarily in Canada under a Coasting Trade Licence (Form C48). Operators may be entitled to use foreign vessels on a duty-reduced basis when no suitable Canadian vessel is available to carry out the required operations.

The Applicant may apply to the CCRA for partial duty remission at the same time that the Coasting Trade Licence is applied for. Most vessels are dutiable at 25 percent of their appraised value. This valuation is based on 2 to 3 appraisals provided by recognized surveyors / brokers / appraisers. Pursuant to the Vessel Duties Reduction or Removal Regulations,[187] where relief is granted through partial remission, duty is calculated at the rate of 1/120th of the duty rate, with the minimum payment being one month's duty and taxes.

The application for a Coasting Trade Licence must be sent to both the CTA and the CCRA. The components of this application are examined below. In practice, most Operators hire an agent to look after the application requirements.

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[183] S.C. 1992, c. 31.
[184] R.S.C. 1985, c. C-53.
[185] R.S.C. 1985, c. 1 (2nd Supp.).
[186] S.C. 1997, c. 36.
[187] SOR/90-304, SOR/91-277, SOR/94-234 and SOR/98-28.

Requests for vessel temporary importation must be made to the CTA and the CCRA by a Canadian resident, typically an agent. Such requests must comply with the requirements of the Application for Vessel Temporary Admission to the Coasting Trade of Canada (Form C47). If an application is made for an unidentified vessel, the application must give sufficient information about the proposed activity in order for a vessel to be identified.

Once completed, applications are to be sent to both the CTA and the CCRA. A covering letter should accompany the application, setting out in summary form the intent of the request. Applicants are urged to apply as far in advance as possible, up to a maximum of one year, prior to the projected date of use of the vessel. This is to allow reasonable time for completion of a proper search to determine whether a suitable Canadian vessel is, or can be, available for the proposed operation.

The CTA identifies, notifies and consults with Canadian vessel operators to inform them of the application. The CTA process provides for a consultation of Canadian vessel operators, who are given the opportunity to advise the CTA in a specified period of time if they have a vessel to offer for the activity.

When an offer of Canadian vessel is received, the Applicant is given the opportunity to comment on the offer, and the maker of the offer is allowed to reply to these comments. It is up to each party to bring forward its arguments. At the end of these pleadings, the CTA will consider the information filed and proceed to determine whether the vessel offered is suitable and available for the activity proposed. The CTA will examine the technical aspects, the financial issues and the commercial considerations submitted before issuing its decision.

The CTA must determine the availability of suitable Canadian vessels for meeting the needs of the Applicant (s. 8(1) of the *Coasting Trade Act*). It has 120 days from the date of application to issue its decision. For this reason, it is suggested that the application be filed as soon as possible before the planned commencement of the activity. In some instances, the CTA will be able to process a regular application in a 10-day delay. The CTA's process is a flexible one, however. In urgent circumstances, it may issue decisions within very limited time frames, without neglecting its duty to consult with Canadian vessel operators.

If the CTA finds that a suitable Canadian vessel is available, the process would stop at this point. The Applicant may request that the CTA's decision be reviewed either by the Agency itself or through the courts, by way of judicial review.

Once the CTA determines that no suitable Canadian vessels are available for the purposes set out in the application, it communicates this determination formally to the CCRA in the form of a letter. The letter is typically copied to Transport Canada, Human Resources Development Canada, Citizenship and Immigration Canada and the Department of Foreign Affairs.

Upon receiving the CTA's decision that no suitable Canadian vessels are available, the CCRA advises the Applicant by letter that he/she must contact Transport Canada or a Certifying Authority, as appropriate, to conduct an inspection of the vessel. The Applicant will also be informed that proper worker authorizations will have to be obtained for foreign workers aboard the vessel. Before the CCRA may grant a Coasting Trade Licence, Transport Canada must determine whether certain marine safety requirements have been fulfilled. Once the Applicant receives a letter from the CCRA stating that the Coasting Trade Licence will be accorded after a vessel inspection is carried out, he/she must contact Transport Canada, to conduct an inspection of the vessel. If the results of the inspection are positive, and the fees set out by Transport Canada's regulations have been paid, a Safety Inspection Certificate (SIC 10) will be issued.

The SIC 10 is issued for a maximum of one year for a non-Canadian ship engaged in the coasting trade of Canada that carries valid certificates for hull and machinery issued by a recognized classification society. TC inspects the ship in accordance with the provisions of the Non-Canadian Ships Safety Order,[188] and in compliance with the requirements of the regulations made under section 410 of the *Canada Shipping Act*.[189]

If a vessel is performing standby functions, a Letter of Compliance from Transport Canada is also necessary. A Letter of Compliance will be issued upon payment of fees based on tonnage, in accordance with the Board of Steamship Inspection Scale of Fees. Once TC approves the marine safety of the vessel, the approving agency will advise the CCRA of its approval. Before a Coasting Trade Licence is issued, the Applicant is required to pay the applicable taxes and duties.

In addition to the Coasting Trade Licence requirements, duty and taxes, Applicants are to ensure that all vessels entering Canadian customs waters, including Canadian vessels, report their arrival in writing to the nearest Canada customs office. This report should be made by way of a General Declaration – Form A6, pursuant to the *Customs Act*. A similar declaration on a separate Form A6 is required as soon as the coasting trade movements set out in the Coasting Trade Licence are completed.[190]

Once approvals are obtained from the CTA, the CCRA, and Transport Canada, a Coasting Trade Licence is granted and the foreign vessel for which the authorization was sought may be used in Canadian waters.

Under certain circumstances, Transport Canada may continue to inspect the vessel while the Coasting Trade Licence is in effect, to ensure the marine safety fitness of the vessel. If the Applicant needs the foreign vessel for under two weeks beyond the term of the Licence, it is possible that, upon receipt of a letter outlining this need, the CTA may allow the vessel to be used for that period without the need for reapplication. Also, if an inspection of the vessel has been conducted within 4 months of the end of the term of the Licence, it is possible that Transport Canada or the CNSOPB may waive the requirement for a subsequent vessel inspection.

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[188] P.C. 1957-1500, as amended.

[189] R.S.C. 1985, c. S-9.

[190] See paras. 25-26 of Memorandum D3-5-7 on "Temporary Importation of Vessels", 29 March 2001, online at: <http://www.ccra-adrc.gc.ca/E/pub/cm/d3-5-7eq/d3-5-7-e.pdf> (date accessed: 2 August 2002).

3.2.5.5 Foreign Worker Authorizations

Generally, this process involves the issuance of an Employment Validation by Human Resources Development Canada (HRDC) if all conditions are met, and subsequent to that, an Employment Authorization by Citizenship and Immigration Canada (CIC). An exception to CIC's regulatory authority is with respect to seismic operations performed in Canadian waters beyond 12 NM from the baselines.[191]
In general, foreign workers will be authorized to work in Canada temporarily when it will not adversely affect employment and career opportunities of Canadian citizens or permanent residents (otherwise known as landed immigrants).

Employers wishing to apply for Employment Validation for foreign workers must contact an HRDC officer in the geographic area in which the job is offered. An HRDC officer will consider validation of an offer of employment for a foreign worker after reviewing the information presented by the employer (or authorized agent). The employer is advised to contact HRDC well in advance of the project commencement to present the foreign worker job descriptions, qualifications and rationale, negotiate conditions, such as training/succession plans if applicable to the situation, determine which jobs may require advertising and to ascertain which jobs, if any, may be exempt from the HRDC validation process.[192]

Following the employer's initial discussions with HRDC/CIC, the employer may be informed that Employment Validations are not necessary. If work is exempted from the Employment Validation process, the next step would be a decision by CIC to issue or refuse Employment Authorizations.

The employer, or the employer's authorized agent, is required to provide HRDC with a proposal providing an overview of the project, rationale for the need for foreign workers, and completed application form(s) for the foreign worker(s).

If a positive validation decision is made, HRDC will produce the Employment Validation Document and send it to the appropriate CIC processing location and HRDC will send the employer an Approval Letter with instructions to initiate the Employment Authorization process with CIC. When finalizing the Employment Validation, HRDC will provide advice to the employer on the next steps to be followed to obtain the Employment Authorization (or EA) from CIC.

The processing of the Employment Authorization may be done at different locations. However, generally, only United States citizens and the residents of Greenland and St. Pierre and Miquelon may be processed and given their Employment Authorization at the port of entry. If the individual is of another nationality but has a "green card" (resident alien status) to work in the United States, they may also be processed at a Port of Entry. All other nationalities must receive their Employment Authorization prior to arriving in Canada. Application for the EA must be made at a Canadian consulate or embassy abroad.

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[191] For more details on this issue, Applicants should contact CIC and / or HRDC directly.

[192] In Nova Scotia, Applicants may contact HRDC, who will liaise with CIC, to obtain information with respect to exemptions to the Employment Validation process.

It is important to note that the Employment Validation is not a guarantee that entry into Canada will be permitted. It is only one step in the process. All foreign workers are subject to an examination interview/assessment at the time they request an Employment Authorization and cannot be "pre-cleared". Entry to Canada may be denied on other grounds, such as, criminal, health or security risks. Furthermore, some nationalities may require visitor visas in addition to the Employment Authorization. There is a cost for the visa of $75.00 for single entry or $150.00 for multiple entry.[193] Such visas can only be obtained at Canadian consulates, embassies or visa offices abroad. There is no charge for the validation process, however, the EA assessment or processing costs $150.00 and is paid to CIC at the time the EA is issued.

If CIC issues an Employment Authorization, the foreign worker will be allowed to work in Canada, or in Canadian waters. Location of work, occupation and duration of employment are specified on the Employment Authorization. If the Employment Authorization is not issued, the foreign worker will not be allowed to work in Canada.

Where an Employment Validation has been issued by HRDC based on a number of conditions, such as the implementation of a succession plan, HRDC will monitor the fulfillment of such conditions.

It is important to note that all processes described in this section are to be adhered to by all companies seeking the admission of foreign workers to Canada. This includes companies who obtain contracts or sub-contracts in the international marketplace and who include a full or partial foreign worker complement in their bid.

3.2.5.6 Sectoral Concerns

No sectoral concerns were noted.

3.2.5.7 Intersectoral Conflicts

Transport Canada and Environment Canada are in the process of addressing coordination requirements for the investigation and prosecution of incidents involving pollution and migratory birds (see "Marine Conservation and Protection" for further details).

Also, there have been concerns that collisions between right whales and ships have taken a toll on the North Atlantic right whale. In order to "sensitize" the marine transportation sector to this potential danger, the Maritimes Region's Regional Director-General at the Department of Fisheries and Oceans has sent letters out asking mariners to watch out for right whales off the Nova Scotia coast.[194] Canada recently sought and obtained IMO approval for the shifting of vessel traffic lanes at the entrance to the Bay of Fundy.

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[193] Fees are subject to legislative changes.

[194] K. Shiers, "DFO calls on mariners to do right by whales" (8 July 2001) *The Sunday Herald* A1.

3.2.5.8 Intersectoral Coordination and Memoranda of Understanding

There have been a number of MOUs concluded between departments regulating the marine transportation sector. They include:

- Transport Canada (TC) and Canadian Transportation Accident Investigation and Safety Board (CTAISB);
- DND and TC (now CCG);
- TC and CTAISB;
- CCG (Fleet Systems) and TC (Ship Safety);
- DFO and TSB;
- CCG and Health Canada;
- Canadian Marine Rescue Auxiliary and Canadian Marine Rescue Auxiliary Member;
- CCG, Ports Canada (no longer exists), Environment Canada, and Nova Scotia Department of Environment (now Department of Environment and Labour);
- CCG (SAR) and CMRA National Council;
- DFO and Transport Canada;
- CCG and Ports Canada Corporation (no longer exists);
- CCG and Environment Canada;
- Fleet Systems/Telecommunications and Electronics/Search and Rescue (CCG);
- Regions Ops and Coordination Centre and Regional Coordinator of Operations (CCG);
- Search and Rescue/Fleet Systems (CCG);
- DFO and Environment Canada;
- DND and TC;
- TC (now CCG) and DND;
- DND and TC (now CCG);
- DOE and MOT;
- TC (Atlantic Region), DFO (CCG Newfoundland Region), and EC;
- DND and DOT (now CCG);
- CCG, EC, and DND.

See the chart at the end of this chapter (Table 3-2) for a summary of these MOUs. The key MOUs are described below.

In the past, there has been some uncertainty as to which agency was responsible for inspecting the various types of vessels used in offshore oil and gas operations. Transport Canada and the CNSOPB have tried to define the division of inspection duties by vessel type. Some of the responsibilities have been divided in the Memorandum of Understanding signed on 14 September 2000.

Transport Canada is currently engaged in important partnerships in support of oceans management in Canada. As identified above, TC shares an MOU with DFO for marine safety and protection of the marine environment. Other interdepartmental arrangements exist with the Department of Justice (prosecutions), National Defence (enforcement), Environment Canada (transportation of dangerous goods), as well as other provincial authorities and crown corporations. Given the Coast

Guard link between TC and DFO, a number of old MOUs are in the process of being revised to reflect the institutional changes. Nonetheless, close ties remain between the two Departments.

Another good example of TC-DFO partnerships is the Canadian Marine Advisory Council (CMAC), which is a consultative body of representatives that have a recognized interest in shipping, navigation and marine pollution matters. CMAC is jointly coordinated and chaired by senior members of TC and the Canadian Coast Guard, and is intended to advise both Departments on national and international matters relating to marine safety, marine operations and services, and marine pollution.

Transport Canada has the responsibility of inspecting vessels that fall under the following categories: shuttle tankers, geotechnical vessels, standby vessels, supply / support / construction vessels, and diving vessels.

The CNSOPB is responsible for inspecting all vessels, including: mobile offshore units, storage tankers, accommodation vessels, helicopter facilities (which require a Certificate of Fitness), and all other "marine installations or structures" (which also require a Certificate of Fitness). Pursuant to paragraph 157(a) of the *C-NSOPRAIA*, a "marine installation or structure" includes:

> any ship, offshore drilling unit, production platform, subsea installation, pumping station, living accommodation, storage structure, loading or landing platform... but does not include any vessel that provides any supply or support services to a ship, installation, structure or work....

Where the vessel is a "marine installation or structure", as defined above, the CNSOPB requires that a Certifying Authority inspect and approve the fitness of the vessel by issuing a Certificate of Fitness.

3.2.5.9 International Integration

Transport Canada is charged with the enforcement of national and international ship safety standards through Port State Control (PSC) and the International Maritime Organization (IMO) regimes. Canada is a full participant in regional PSC arrangements in Europe (Paris MOU) and the Asia-Pacific region (Tokyo MOU), and an observer/supporter of PSC in the Caribbean. These international agreements or arrangements provide specific regulations and protocols regarding inspection rates and procedures, information sharing, and sanctions.

The *Canada Shipping Act, 2001* proposes amendments to the *Shipping Conferences Exemption Act, 1987* (SCEA) with a view to keeping Canada's conference legislation in harmony with the legislation of its major trading partners. SCEA outlines the rules under which conferences — groups of ocean shipping lines operating collectively under an agreement to provide scheduled services on specific trade routes based on agreed rates and services — are allowed to operate in Canada. Conferences play an important role in Canada's foreign trade, providing stability and reliability in shipping services for Canadian shippers, importers and exporters.

3.2.6 Maritime Defence

3.2.6.1 Key Regulatory Processes

The key department regulating the sector of Maritime Defence is the Department of National Defence (DND). For a brief description of DND's mandate, please refer to the descriptions found in section 3.1, under "Description of Principal Regulatory/Advisory Bodies."

The following section outlines the various processes associated with maritime defence activities. It also sets out the various regulatory activities of the key agencies and identifies the integration efforts, either through formal agreements, as agreed to in MOUs or informal arrangements, such as information sharing or consultation. This section examines the functions of DND and those of a number of other agencies or departments with respect to Maritime Defence.

Maritime Forces

Pursuant to the *National Defence Act*,[195] the Minister is responsible for the management and direction of the Canadian Forces and for all matters relating to national defence. As applied to the oceans, the key DND objective is "to defend Canada by protecting Canada's national territory and jurisdictional areas, helping civil authorities protect and sustain national interests, and assisting in national emergencies."

Canada's Maritime Forces, which are comprised of the Navy (Maritime Command) and the Maritime Air Group, are responsible for the surveillance, monitoring and control of Canada's coastal and maritime zones. These activities occur through regular patrols by surface ships, aircraft and submarines, and through regular training exercises and operations with allied forces, including, the U.S. Navy and the NATO Standing Force Atlantic.

The Maritime Forces also provide important support to the oceans-related mandates of other government departments, including fisheries protection and environmental/pollution patrols with Fisheries and Oceans Canada, Environment Canada and Transport Canada; policing operations with the Royal Canadian Mounted Police (RCMP) for counter-drug and anti-smuggling initiatives; customs enforcement with Canada Customs and Revenue Agency; and illegal immigration enforcement with Citizenship and Immigration Canada. As the Canadian Forces do not have a mandate to enforce national laws against Canadian citizens, coordinated enforcement operations with other government departments are usually conducted under the mandate of the civilian agency.

Canada's Maritime Forces are stationed on both coasts: Maritime Forces Atlantic (MARLANT) and Maritime Forces Pacific (MARPAC). The Canadian Navy operates 12 HALIFAX Class frigates, 4 IROQUOIS Class destroyers, 12 KINGSTON Class maritime coastal defence vessels (MCDVs), 4 VICTORIA Class submarines, and 2 PROTECTEUR Class replenishment vessels. The MCDVs provide Canada with enhanced coastal patrol and mine counter-measure capabilities, as well as additional platforms for assisting other government departments in activities such as fisheries patrols. In addition to these combatant vessels, the Navy operates an auxiliary fleet of research vessels, tugs, barges and coastal oilers. The Maritime Air Component consists of 18 Aurora long-range patrol aircraft, 28 Sea King multi-purpose helicopters, and three Arcturus maritime surveillance aircraft. These resources are shared fairly equally between both coasts.

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[195] *National Defence Act*, R.S.C. 1985, c. N-5.

3.2.6.2 Sectoral Concerns

Timely Information

As the sector of Maritime Defence becomes increasingly dependent on technology, there is more pressure to continuously update surveillance equipment. Fundamental changes must be made to the current surveillance and information management methods. Aside from merely collecting timely information, the key to success lies in the integration of the surveillance information flow within and between government departments. Acquiring new surveillance technology without taking the necessary steps to coordinate and integrate interdepartmentally will ultimately result in inefficiency and waste.

Osbaldeston Report

The 1990 Report of the Study on the Utilization of the Federal Government's Marine Fleets, entitled "All the Ships that Sail", commonly known as the Osbaldeston Report, was submitted to the Treasury Board of the Government of Canada. This Report had three main objectives:

- To examine the management of the federal government's marine fleet management policies, practices and operations;
- To assess alternatives to existing management and delivery of these functions; and
- To identify options, where warranted, for fleet consolidation in terms of desirability and feasibility.

The Osbaldeston Report provided a comprehensive look at Canada's federal fleet utilization, ship acquisition and replacement, alternative assets and resources, and interdepartmental operating arrangements.

3.2.6.3 Intersectoral Conflicts

Several intersectoral gaps or concerns were identified by the Osbaldeston Report. An examination of requirements for federal fleets, both then and for the future, focused on the areas of maritime defence and security, marine transportation services, marine resource development and management, marine science, marine policing and constabulary roles, and marine environmental protection. From this examination, two areas of unmet demand were determined: fisheries resource management and protection; and marine sciences. Through these two examples, the Report illustrated that the utilization of existing fleet capacity to address identified shortfalls would enable more effective utilization of federal marine assets.

The Report also presented various fleet consolidation options and scenarios, examining each for efficiency. However, it was concluded that the then existing arrangement of three distinct government fleets and operating departments: the Canadian Navy (Department of National

Defence), the Canadian Coast Guard (formerly under Transport Canada, now under Fisheries and Oceans Canada), and the Fisheries Protection fleet (Department of Fisheries and Oceans), provided the most suitable structure for efficient and effective utilization of marine assets. Nevertheless, the conclusion was not an endorsement of the *status quo* for marine fleet operations; a comprehensive set of actions was also recommended by the Report for the more effective use of fleet capacity. These included:

- the assignment of additional responsibility to DND and the Navy in particular for increased environmental surveillance;
- increased naval assistance to the RCMP for preventive patrols requiring armed vessels;
- multi-tasking and increased patrol responsibilities of Coast Guard vessels for environmental protection and fisheries protection, along with marine safety tasks; and
- inter-operable communication and information systems between federal fleets and user departments, e.g., RCMP, Environment Canada.

Greater intersectoral integration is needed in building an interdepartmental surveillance network. Lead agencies for gathering and storing information in a particular area of surveillance interest can continue to do their work, virtually all of which is now computer-based. The databases resulting from this work need to be "networked" between departments so that the best information is readily available to all, without duplication of effort. A reasonable start in this direction has been the development of the Canadian Maritime Network, or CANMARNET. Further development is required to make this system support an integrated information environment for maritime surveillance. The creation of a "virtual" operations center, joining several existing centres would be helpful to share and use a common surveillance information database.

Issues of concern have been raised by the fishing industry and others regarding chemical and warfare agent disposal sites. Multinational naval exercises may have impacts on other ocean space users and naval test ranges do exist in the ESSIM area. Hence, ocean space use restrictions could potentially be applied to naval operations to achieve the objectives of the integrated management plan.

3.2.6.4 Intersectoral Coordination and Memoranda of Understanding

Interdepartmental Marine Security Working Group (IMSWG)

Transport Canada chairs the Interdepartmental Marine Security Working Group (IMSWG), which was established in October 2001 to identify and coordinate the Government of Canada's actions in support of enhancing the security of Canada's marine transportation system.

Key functions of the IMSWG include:

- Analyzing Canada's marine system for security gaps and developing strategies for addressing these gaps

- Facilitating cooperation and coordination with member federal departments and agencies, other levels of government and the private sector, and regional-based committees with interest in or responsibilities for marine security
- Providing integrated and interdepartmental recommendations on the prioritization of marine security enhancements, including resource requirements
- Developing national policy recommendations
- Managing the allocation of resources through the Marine Security Coordination Fund
- Fulfilling related international obligations.

List of Integrated Management Activities

Canada's Maritime Forces are involved in a number of activities important for integrated management, including:

- DND is the lead agency for the national Search and Rescue (hereinafter SAR) Program which involves federal, provincial/territorial and municipal governments, as well as private organizations. There is an Interdepartmental Committee on SAR comprised of representatives from oceans-related departments, including CCG-DFO. DND is responsible for SAR operations in the offshore.[196] In order to effectively coordinate efforts with respect to SAR matters, the Interdepartmental Committee on Search and Rescue (ICSAR) was created. ICSAR is responsible for identifying SAR requirements and advising the government on how best to respond to these requirements. It is chaired by the Executive Director of the National Search and Rescue Secretariat and consists of members from DND, DFO-CCG, Transport Canada (Aviation), Environment Canada (Atmospheric Environmental Services), the RCMP, Parks Canada, Department of Natural Resources, Department of Indian Affairs and Northern Development, Emergency Preparedness Canada, Treasury Board, and the Privy Council Office.

SAR operations in the offshore are the result of joint DFO-CCG and DND efforts. The two agencies support the National Search and Rescue Program through two areas of activity related to aeronautical and maritime SAR services:

- SAR operations, aimed at detection, response and rescue; and
- SAR prevention, aimed at reducing the number and severity of SAR incidents through education and the enforcement of relevant regulations.[197]

Also, there have been some examples of cooperation between DND and Operators in SAR efforts. In particular, some supply vessels have formally been tasked on more than one occasion to support SAR efforts offshore.

The Atlantic Zone Operations Sub-Committee (AOSC) is coordinated by MARLANT. Membership in the AOSC includes representatives from: DND, DFO/CCG, RCMP, and Canada Customs and Revenue Agency. The key intersectoral aims of the AOSC include:

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[196] See s. 1.8 of the National Search and Rescue Manual, Department of National Defence, May 1998, revised May 2000.

[197] See s. 1.12 of the National Search and Rescue Manual, Department of National Defence, May 1998, revised May 2000.

- coordinating the use of training simulators and other appropriate training equipment among departments;
- facilitating participation by departments in maritime training exercises by providing a venue for discussion related to scenario development, timings and participants to improve interoperability;
- identifying and rectifying communication deficiencies to ensure interdepartmental communications is improved;
- maintaining the minimum essential communication components, data and voice required for interdepartmental operations; and
- reporting on the progress of interdepartmental maritime surveillance and information sharing initiatives.

As part of this process, DND oversees the Interdepartmental Concept of Maritime Operations for all missions and tasks which clearly identify lead departments and roles, supporting departments and roles, associated MOUs and arrangements, communications, and chains of command at on-scene, regional and national levels.

On the East Coast, MARLANT maintains and coordinates maritime surveillance and response for the CANLANT area (area of responsibility in NW Atlantic under NATO and U.S. military cooperation agreement). In 1994, a developmental system known as the Canadian Maritime Network (CANMARNET) was established. CANMARNET is an important component of this surveillance and information management system, and provides multiple government user access to the Recognized Maritime Picture (RMP) and associated intelligence/surveillance information. This system linked the mainframe data management systems of DFO, CCG (when it was under Transport Canada) and the Maritime Forces Atlantic Headquarters. CANMARNET has evolved into a collection of centrally hosted e-mail, database and file servers supporting over sixty users through commercial phone line dial-up access. Additional features, including merchant ship and fishing vessel photo databases, and query access to Lloyd's On-line Registry have also been made available to the users.

MARLANT organizes interdepartmental biennial symposia involving senior management of all Atlantic federal departments to share and discuss information on maritime operations.

There are a number of sources through which vessel locating information is provided freely by the vessels themselves or by government officials. These sources provide particularly useful information on the movement and whereabouts of cooperative contacts and include:

- ***Coast Guard Vessel Traffic Management System***: merchant vessels check in with the Coast Guard, providing position and intended movements;
- ***Fisheries Observers***: providing position and catch information on fishing vessels at sea;
- ***RCMP Coastal Watch Program***: citizens in coastal communities are encouraged to contact the RCMP if they detect unusual activity at sea or along the coast. This source often provides useful information on uncooperative vessels;
- ***Customs Officials***: provides information on vessel arrivals and departures in ports;
- ***Port Authorities***: provides information on vessel movements;

- ***Shipping Agents***: some agents will provide specific information on request;
- ***Weather Reports***: many vessels report the weather in their operating areas to meteorological officials.

A number of Memoranda of Understanding have been signed between the following agencies / departments with respect to maritime defence:

- CCG (when it was under Transport Canada) and RCMP;
- CCG (when it was under Transport Canada) and Solicitor General (RCMP);
- DND and Transport Canada;
- DFO and DND;
- DFO and Transport Canada;
- Transport Canada, DND and CPC;
- Canadian Coast Guard (when it was under Transport Canada) and Transport Canada (Ship Safety);
- Fleet Systems/Telecommunications and Electronics/Search and Rescue (CCG);
- DND and Transport Canada;
- Transport Canada (CCG) and DND;
- DND and Transport Canada; and
- CCG, EC, and DND.

See the chart at the end of this chapter (Table 3-2) for a summary of these MOUs.

3.2.6.5 International Integration

There are three key international instruments addressing maritime defence. The first is the Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation. It is intended to ensure that appropriate action is taken against persons committing unlawful acts against ships. Canada is a party to this Convention, which was implemented by an amendment to section 78.1 of the *Criminal Code*.

Secondly, the United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances is a binding international instrument to promote co-operation among State Parties to address suppression of illicit traffic in narcotic drugs and psychotropic substances having an international dimension. This matter is covered by anti-narcotic legislation for ships within Canada including territorial waters, offshore installations and Canadian flag shipping. Canada cooperates bilaterally with several states in this area.

The Agreement on Illicit Traffic by Sea, Implementing Article 17 of the United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances is a treaty of the Council of Europe to assist in suppressing drug smuggling by sea. The treaty allows non-European Union states to accede to the treaty. Canada is not a member of this treaty.

3.2.7 Oil and Gas

3.2.7.1 Key Regulatory Processes

The key departments regulating the Oil and Gas sector are the Canada-Nova Scotia Offshore Petroleum Board and the Nova Scotia Department of Energy. For a brief description of each agency's mandate, please refer to the descriptions found in section 3.1, under "Description of Principal Regulatory/Advisory Bodies."

The following section outlines the processes associated with respect to oil and gas activities. It also sets out the various regulatory activities of the key agencies and identifies the integration efforts, either through formal agreements, as agreed to in MOUs or informal arrangements, such as information sharing or consultation.

Please note that the following is only a summary of the various regulatory processes governing the oil and gas sector. A more comprehensive treatment is found in the Atlantic Canada Petroleum Institute's June 2001 document: *Oil and Gas Approvals in Atlantic Canada – Nova Scotia Offshore Area – A Guide to Regulatory Approval Processes for Oil and Natural Gas Exploration and Production in the Nova Scotia Offshore Area.*[198] All exploration and development proposals in the offshore area are subject to an environmental assessment under the *Canadian Environmental Assessment Act.*

3.2.7.2 Canada-Nova Scotia Offshore Petroleum Board

The Canada – Nova Scotia Offshore Petroleum Board (CNSOPB) is an independent joint agency of the governments of Canada and Nova Scotia, established in 1990. The CNSOPB's mandate is to regulate petroleum activities in the Nova Scotia offshore area in an efficient, fair, and competent manner. Its principal responsibilities include:

- Enhancement of safe working conditions for offshore petroleum activities;
- Protection of the environment during offshore petroleum activities;
- Management of offshore petroleum resources to ensure that operators provide for maximum economic recovery and avoid waste;
- Review of industrial benefits matters relating to proposed petroleum activities in Nova Scotia's offshore area so as to ensure that Canadians, with first consideration given to Nova Scotians, have a full and fair opportunity to participate on a competitive basis in the supply of goods and services to be used in any proposed offshore petroleum activities;
- Issuance, in a controlled and fair manner, of licences required to carry out petroleum exploration and development activities in the Nova Scotia offshore area;
- Collection, maintenance and distribution of offshore petroleum information to the petroleum industry, governments and the public in general.

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[198] Available online: <http://www.oilandgasguides.com/guides/ac-nsoa/ac-nsoff.pdf>.

The following is a summary of the types of decisions made by the members of the CNSOPB and officers or committees appointed under the *Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act (C-NSOPRAIA or Accord Act)*:

- fundamental decisions, which require approval from the federal Minister of Natural Resources and the provincial Minister of Energy;
- decisions subject to joint Ministerial directives, which are not statutory and are limited in their application;
- matters other than fundamental decisions requiring consultation with the two responsible Ministers;
- proposed decisions which may be subject to review by an Oil and Gas Committee, appointed by the CNSOPB for special circumstances;
- decisions which are not subject to other considerations;
- decisions other than by the CNSOPB or Ministers, such as the Chief Conservation Officer, Chief Safety Officer or Oil and Gas Committee; and
- decisions with respect to which explicit provisions may allow for review or appeal by the Courts.

Subject to any ministerial directive issued under subsection 44(1) of the *C-NSOPRAIA*, the CNSOPB has the discretion to conduct a public review in relation to the exercise of any of its powers or the performance of any of its duties where it is of the opinion that it is in the public interest to do so. In conducting a public review, it may:

- establish terms of reference and a timetable;
- appoint one or more commissioners; and
- cause the commissioners to hold public hearings in appropriate locations (paras.44(2)(a)-(c), *C-NSOPRAIA*).

Typically, the CNSOPB exercises its discretion to conduct a formal public review of a proposal when a Proponent has submitted a Development Plan.

General CNSOPB Work Authorization Process

Pursuant to subsection 142(b) of the *C-NSOPRAIA*, any work or activity associated with oil and gas exploration, development, or production in the Nova Scotia offshore area requires a Work Authorization from the CNSOPB.

Although the details and technical issues associated with each Work Authorization differ considerably, there are certain aspects of the authorization process that are common to all. For example, pursuant to subsection 142(4) of the *C-NSOPRAIA*, all Work Authorizations are subject to such approvals as the CNSOPB determines or may be granted in accordance with the regulations and such requirements and deposits as the CNSOPB determines or as may be prescribed, including:

- requirements relating to liability for loss, damage, costs or expenses;
- requirements for the carrying out of environmental programs or studies; and

- requirements for the payment of expenses incurred by the CNSOPB in approving the design, construction and operation of production facilities and production platforms, as those terms are defined in the regulations.

There is also a provision in the Act to ensure that the CNSOPB consider the safety of the work or activity by reviewing, in consultation with the Chief Safety Officer, the system as a whole and its components, including its structures, facilities, equipment, operating procedures and personnel (s. 142.2, *C-NSOPRAIA).*

Among the most commonly sought Work Authorizations are:

- Geophysical, Geological, Geotechnical or Environmental Program Authorizations;
- Drilling Program Authorizations;
- Diving Program Authorizations;
- Production Operations Authorizations; and
- Well Operation Program Authorizations (although it is noted that the CNSOPB has yet to require that a Well Operation Program Authorization be issued).

Authorizations are also required for work activities that are associated with project development (the construction, installation and commissioning of production installations) and for decommissioning and abandonment. Since the activities undertaken during these phases vary considerably from one project to another, the specific work authorization requirements are normally determined in accordance with the unique characteristics of each project.

In order to obtain a work authorization the applicant must submit an application to the CNSOPB. Each application must be accompanied by one or more copies of the designated CNSOPB application form(s). These forms are available from the CNSOPB office in Halifax. In addition to the submission of application forms, there are a number of other requirements that must be satisfied before an Authorization will be issued. The requirements associated with a Work Authorization application vary, depending on the nature of the Authorization being sought. Several components are, however, common to most Authorizations. These include the obtaining and/or submitting of:

- an Operating Licence,
- a Canada-Nova Scotia Benefits Plan;
- a Safety Plan;
- an Environmental Impact Statement and an Environmental Protection Plan;
- a Certificate of Fitness ;
- Proof of Financial Responsibility;
- Summary of Proposed Operations;
- a Declaration of Operator; and
- additional requirements as specified by the CNSOPB.

Other CNSOPB Regulatory Processes

Other CNSOPB regulatory processes that differ somewhat from the general work authorization include:

- the Approval to Drill a Well;
- the Exploration Licence;
- the Declaration of Significant Discovery and Significant Discovery Licence;
- the Declaration of Commercial Discovery;
- the Production Licence;
- the Development Application;
- the Development Program Application; and
- the Decommissioning Work Authorizations.

These are rather different processes and the detail required to describe their various requirements is beyond the scope of this *Regulatory Overview*. Further details may be found in the ACPI "regulatory roadmap" document of June 2001.

Other Regulatory Authorizations

In addition to the requirements of the CNSOPB, and depending on the nature of the project, applicants may be required to obtain licences, permits, approvals or authorizations from federal agencies. These may include:

- a *CEAA* Determination (as discussed under "Marine Conservation and Protection");
- a *Fisheries Act* Authorization from the Habitat Management staff Fisheries and Oceans Canada (as discussed under "Fisheries");
- a *CEPA, 1999* Disposal at Sea Permit (as discussed under "Marine Conservation and Protection");
- a Transport Canada Vessel Certification (as discussed under "Marine Transportation");
- a Canadian Customs and Revenue Agency (CCRA) and Canadian Transportation Agency (CTA) Coasting Trade Licence (as discussed under "Marine Transportation");
- a Human Resources Development Canada (HRDC) Employment Validation (as discussed under "Marine Transportation"); and
- Citizenship and Immigration Canada (CIC) Employment Authorization (as discussed under "Marine Transportation").

3.2.7.3 CEAA Process

As mentioned under "Marine Conservation and Protection", there are a number of projects found in the *Inclusion List Regulations* which automatically trigger the CEAA process. The following oil and gas projects are found in the *Inclusion List Regulations*:

- physical activities relating to the abandonment of the operation of a pipeline that requires leave under paragraph 74(1)(d) of the *National Energy Board Act*;

- excavation using power-operated equipment or explosives at a distance of less than 30 m from a pipeline, where the excavation requires leave under subsection 112(1) of the *National Energy Board Act*.
- physical activities relating to the exploration for, or the production of, oil or gas that requires an Authorization under paragraph 5(1)(b) of the *Canada Oil and Gas Operations Act*;
- physical activities relating to the approval of a Development Plan under subsection 5.1(4) of the *Canada Oil and Gas Operations Act* (ss. 14–19, Regulations); and
- seismic surveying in Canada not otherwise provided for under this schedule that is marine or freshwater seismic surveying, if during the survey the air pressure measured at a distance of one metre from the source would be greater than 275.79 kPa (40 pounds per square inch).

Pursuant to paragraph 7(1)(a) of the *CEAA*, there are a number of projects, including those relating to offshore oil and gas projects, that are explicitly excluded by the Governor in Council from the federal EA process. These are typically projects that do not require an environmental assessment under the Act because they are understood to have insignificant effects on the environment. These projects are listed in the *Exclusion List Regulations* as follows:

> The proposed relocation of a section of oil and gas pipeline that would not:
>
> - result in the extension of the pipeline beyond the existing limits of the right-of-way or of other property on which the pipeline is located,
> - be undertaken within 30 m of a water body, or
> - involve the likely release of a polluting substance into a water body, or result in an increase in airborne emissions or noise during the operation of the facility.
>
> The proposed addition or installation of any of the following components with respect to an existing onshore oil and gas pipeline:
>
> - a new connection,
> - piping,
> - cathodic protection systems, including rectifiers,
> - valves, including valve vaults and pressure transmitters,
> - compressor and pump station components including compressors, pumps, motors, silencers, scrubbers, gas seals, system boilers, scraper traps, switch gear, transformers and uninterruptible power supply,
> - storage tank components, including mixers and ladders,
> - metering and regulating facilities,
> - quality measurement systems, including analyzers for water or basic sediment, densitometers, calorimeters, in-line viscometers, gas chromatographs and automatic/composite samplers, or
> - mechanical and electrical systems of a facility building, including plumbing, air conditioning, heating and ventilation systems, not involving the use or disposal of chlorofluorocarbons.

The foregoing list does not apply to the proposed addition or installation of a pipeline component that would:

- result in the extension of the pipeline beyond the existing limits of the right-of-way or of other property on which the pipeline is located,
- be undertaken within 30 m of a water body, or
- involve the likely release of a polluting substance into a water body, or result in an increase in airborne emissions or noise during the operation of the facility.[199]

The offshore oil and gas projects that require a comprehensive study include:

the proposed construction, decommissioning or abandonment of:

- a platform, artificial island or any other physical work for the production of oil or gas, where the platform, island or work is located offshore in salt water,
- a heavy oil or oil sands processing facility with an oil production capacity of more than 10,000 m^3/d, or
- an oil sands mine with a bitumen production capacity of more than 10,000 m^3/d.

the proposed expansion of a heavy oil or oil sands processing facility that would result in an increase in oil production capacity that would exceed 5,000 m^3/d and would raise the total oil production capacity to more than 10,000 m^3/d;

the proposed construction, decommissioning or abandonment or an expansion that would result in an increase in production capacity of more than 35 percent of:

- an oil refinery, including a heavy oil upgrader, with an input capacity of more than 10,000 m^3/d,
- a facility for the production of liquid petroleum products from coal with a production capacity of more than 2,000 m^3/d,
- a sour gas processing facility with a sulphur inlet capacity of more than 2,000 t/d,
- a facility for the liquefaction, storage or regasification of liquefied natural gas, with a liquefied natural gas processing capacity of more than 3,000 t/d or a liquefied natural gas storage capacity of more than 50,000 t,
- a petroleum storage facility with a capacity of more than 500,000 m^3,
- a liquefied petroleum gas storage facility with a capacity of more than 100,000 m^3.

the proposed construction of an offshore oil and gas pipeline; and
a proposed offshore exploratory drilling project in an area[200] where no other offshore exploratory drilling project has been previously assessed under either the *CEAA* or the Environmental Assessment Review Process Guidelines Order.[201]

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[199] *Exclusion List Regulations*, as am. SOR/99-437, ss. 30.1–30.2.

[200] The term "area" is not defined in the Act or Regulations.

The oil and gas projects which have resulted in a comprehensive study include: the Newfoundland Transhipment Terminal, White Rose, the third development project filed for the Grand Banks, as well as the Halifax and Saint John Lateral Pipelines. To date, the only oil and gas activity in the Atlantic Provinces to undergo a *CEAA* screening is the Point Tupper Lateral in Nova Scotia.

To date in Atlantic Canada, there have been two completed federal EA panel reviews of oil and gas projects under the Environmental Assessment and Review Process Guidelines Order (EARPGO, the predecessor to the *CEAA*) and two under the *CEAA*:

- the Hibernia Development Project, for an offshore oil development on the Grand Banks, conducted jointly by the governments of Canada and Newfoundland (EARPGO);
- the Venture Development Project, for an offshore natural gas development on the Scotian Shelf, conducted jointly by the governments of Canada and Nova Scotia (EARPGO);
- the Sable Offshore Energy Project, for an offshore natural gas development in Nova Scotia and export pipeline, conducted jointly by the governments of Canada and Nova Scotia; and
- the Terra Nova Project, for an offshore oil development conducted by a joint federal-provincial panel, established by the governments of Canada and Newfoundland.

3.2.7.4 Natural Resources Canada

Natural Resources Canada (NRCan) is a scientific and economic development department concerned primarily with Canada's landmass and the sustainable development and responsible use of Canada's mineral, energy, and forest resources. NRCan shares science and technology responsibilities with other science-oriented federal departments. In the area of science and technology for sustainable natural resource development, NRCan shares a MOU with DFO, Environment Canada, and Agriculture and Agri-Food Canada.

Oceans-related activities for NRCan occur through the following departmental program areas.

Energy Sector

Frontier Lands Management oversees the Department's mandate for offshore oil and gas resources on Canada's east and west coasts, the Gulf of St. Lawrence, and Hudson Bay, excluding Accord areas, i.e., Newfoundland and Nova Scotia. NRCan's Energy Sector is responsible for the development of Canada's Energy Policy. NRCan develops legislation and regulations for safety, environmental protection, and resource conservation. Implementation of the legislation and regulations is effected by the Canada-Nova Scotia and Canada-Newfoundland Offshore Petroleum Boards in their Accord areas, and by the National Energy Board in all other frontier areas. Frontier Lands Management also manages the $300 million Canada-Newfoundland Offshore Development Fund and the $200 million Canada-Nova Scotia Offshore Development Fund for developing infrastructure and research for oil and gas development.

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[201] *Comprehensive Study List Regulations*, ss. 11–15.

The *Office of Energy Research and Development* manages the federal government's interdepartmental Program of Energy Research and Development (PERD). A number of PERD projects are directly related to the oceans, as exemplified by support to offshore oil and gas exploration and development in the Beaufort Sea and on the east coast. PERD funds are used in cooperation with industry to develop required information and regulatory infrastructures for oil and gas development, including offshore geotechnics, ice/structure interaction and safety, environmental conditions and forecasting, and pipeline and marine transportation of oil and gas. PERD also supports work on climate change and greenhouse gases, including changes to sea ice and marine weather conditions, and the disposal and fate of carbon dioxide in the oceans.

Minerals and Metals Sector

The Minerals and Metal Sector focuses on the economic development of Canada's mineral resources through the development of federal policies on sustainable mineral development and environmental and land-use issues. It is responsible for the administration of all federally owned mineral rights in the provinces, and non-fuel offshore mineral interests south of 60° N latitude. Sector activities occur in three main areas: ownership (e.g., provinces, First Nations); environmental assessment and protection (e.g., protected areas and MEQ); and economics (resource assessments, revenue sharing).

Earth Sciences Sector

Under the Earth Sciences Sector of NRCan, the Geological Survey of Canada (GSC) is the principal source of marine geoscience information for territorial claims, marine non-renewable resources, and environmental management. Delivery of GSC program services is facilitated through partnership with DFO and Environment Canada, with similar shared facilities and resources at the Bedford Institute of Oceanography. GSC programs related to the oceans are delivered through the following activities:

Marine Regional Geoscience provides baseline geological and geophysical data at a number of different scales for territorial definition, resource identification, and environmental management. Coastal mapping is done in support of coastal development and resource use, coastal zone management, and coastal protection activities. Geological mapping from the nearshore to the deep seabed directly supports all types of offshore activities, including environmental and resource assessment, military operations, scientific research and knowledge of Canada's offshore margins, shelves and basins, as well as territorial and regulatory issues, e.g., the limits of the continental shelf under Article 76 of the UN Law of the Sea Convention.

Marine Resources Geoscience provides identification and assessments of offshore non-renewable resources, such as seabed minerals (e.g., aggregates and placer deposits), and sub-seafloor oil, gas and gas-hydrates. GSC work in this area provides important input for industry, oceans science, as well as regulatory planning requirements. In the Eastern Scotian Shelf area, GSC is integrally involved in the identification, mapping, and planning of future commercial seabed mining.

Marine Environmental Geoscience provides knowledge of the geoscience component of environmental systems for sustainable development. Within this program area, GSC operates with two distinct mandates: the understanding of natural geological processes and constraints to coastal and offshore development; and the evaluation of potential or previous development impacts on natural environmental systems. This work involves the study of the distribution, magnitude, and frequency of marine geological hazards, including seabed erosion, fluid escape, submarine landsliding, and earthquakes (especially on the west coast). Understanding of coastal and seafloor processes is critical for all types of ocean construction and developments, ranging from offshore platforms, undersea communications cables, to port facilities. The Marine Environmental Geoscience program also provides input to the interdepartmental Marine Environmental Quality Initiative Action Plan.

Geomatics Canada provides geographical information on Canada's landmass through surveys, maps and remote sensing applications, in support of national sovereignty, defence, environmental, and social-economic development activities. Within Geomatics Canada, the Geodetic Survey Group provides technical support for geomatic applications; Legal Surveys maintains the Canada Lands Survey Record, which provides a legal survey framework for property rights in the offshore for mineral and energy resource development; the International Boundary Commission oversees the international boundary with the United States; and the Canada Centre for Remote Sensing provides support to remote sensing technology development and activities.

In relation to Integrated Management and the Maritimes Region, NRCan operates under the following pieces of federal legislation:

Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act
Canada Oil and Gas Operations Act
Canada Petroleum Resources Act
Resources and Technical Surveys Act

The Minister of NRCan also exercises specific regulatory functions in the offshore of Nova Scotia. Along with the Minister responsible for the Nova Scotia Department of Energy (see below), the Minister of NRCan is responsible for:

- enacting legislation and regulations;
- reviewing CNSOPB fundamental decisions for activities such as issuance of call for bids, drilling orders, mode of development, etc. (ss. 32–35, *C-NSOPRAIA*). This review function is described further in the text and charts of the ACPI Nova Scotia Offshore Guide, where a fundamental decision is made;
- issuing directives to CNSOPB (s. 41, *C-NSOPRAIA*). This function is described further in the text and charts of the ACPI Nova Scotia Offshore Guide;
- coordinating Canada-Nova Scotia benefits with CNSOPB within the CNSOPB's Benefits Review Committee;
- approving annual operating budgets for the CNSOPB;
- approving strategic plans for rights issuance;
- tabling annual reports;
- providing studies and policy advice; and

- collecting levies from developers for the Environmental Studies Research Fund (ESRF) once an exploration licence has been issued.

NRCan works closely with the CNSOPB on a number of regulatory matters. In particular, it is a member of the CNSOPB's Fisheries and Environmental Advisory Committee as well as its Benefits Review Committee.

3.2.7.5 National Energy Board

The National Energy Board (NEB) is an independent federal regulatory tribunal that reports to Parliament through the Minister of Natural Resources. The NEB operates under the *National Energy Board Act* to grant authorizations for the following activities:

- The construction and operation of interprovincial/international oil and gas pipelines and powerlines;
- the setting of tolls and tariffs for oil and gas pipelines;
- the export of oil, natural gas and electricity; and
- the import of natural gas.

The NEB also has regulatory powers under the *Canada Oil and Gas Operations Act* and the *Canada Petroleum Resources Act*.

The NEB's oceans-related responsibilities include the following areas:

- *Frontier Oil and Gas:* The NEB has regulatory responsibility for oil and gas exploration, development, and production activities on Canada's frontier lands, but excluding those areas under separate federal-provincial Accords, i.e., offshore Newfoundland and Nova Scotia. NEB regulatory efforts focus on worker safety, environmental protection, and resource conservation.
- *Environmental Matters:* The NEB is responsible for environmental issues relating to the regulation of gas, oil, petroleum products pipelines, energy exports, international power lines, and frontier oil and gas. This includes the *Offshore Waste Treatment Guidelines*. The NEB is working with the Canadian Environmental Assessment Agency to streamline regulatory processes relating to environmental impact assessments under the *Canadian Environmental Assessment Act*.
- *Emergency Response:* In non-Accord areas, the NEB is the lead federal response agency for oil spills related to exploration, production or pipeline transportation.
- *Research and Development:* The NEB participates in the Program of Energy Research and Development to support technology development in the energy sector. On the marine side, the NEB takes a leadership role in ice/structure interaction, personnel evacuation technologies, environmental forecasting and design, marine conditions (waves, ice, icing and winds), measurement technologies, marine weather and wind forecasting, climate change issues, marine transportation of energy products, and marine oil spill response and remediation.

3.2.7.6 Environment Canada

In general, with respect to offshore oil and gas exploration and production, EC's regulatory responsibilities are divided in the following three branches:

- Environmental Conservation Branch: protects migratory birds and waters frequented by migratory birds from the effects of seismic and other geological/geophysical activities, exploratory and development drilling, oil and gas production, and distribution.
- Environmental Protection Branch: provides input to the regulation of waste discharges from exploratory and development drilling, oil and gas production; chairs the Regional Environmental Emergency Team (REET); provides advice to other agencies on environmental assessments; and may issue disposal at sea permits for activities associated with drilling, pipeline construction, and decommissioning.[202] Prior to issuing a disposal at sea permit, Environment Canada must ensure an environmental assessment is conducted.
- Atmospheric Environment Branch: provides accurate information on weather, sea-states and ice movement.

3.2.7.7 Nova Scotia Energy Department

The Nova Scotia Petroleum Directorate was established in 1997 to consolidate the petroleum-related activities of the Province of Nova Scotia and serve as the provincial government's focal point in the development of the province's oil and natural gas resources. The provincial Department of Energy now carries out this mandate.

In addition, the Department of Energy is mandated to work with industry on strategies for employment, gas access, pricing, marketing, and safety. The Department of Energy also assists in the licensing of onshore and offshore exploration and production activity, as well as legislative matters. In this capacity, the Directorate provides advice to the Minister on the following provincial legislation:

Petroleum Resources Act
Energy and Minerals Resource Conservation Act
Gas Distribution Act
Pipeline Act
Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act
Offshore Petroleum Royalty Act

3.2.7.8 Sectoral Concerns

There are concerns that the regulatory process governing the oil and gas industry is onerous and redundant.

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[202] CEPA, Part 7, Division 3 provides an exemption for disposal activities that entail a discharge or storage directly arising from, or directly related to, the exploration for, exploitation of and associated offshore processing of seabed mineral resources. Due to this exemption, activities related to oil and gas exploration and production that require a disposal at sea permit have to date occurred infrequently.

3.2.7.8 Intersectoral Conflicts

There have been some conflicts between the oil and gas sector and other marine use sectors in the eastern Scotian Shelf, including fisheries and marine conservation and protection. Spatial overlaps with the fisheries sector have arisen from fisheries exclusion zones. Environmental non-governmental organizations are concerned that the oil and gas licensing process is not effective in protecting the marine environment.

3.2.7.9 Intersectoral Coordination and Memoranda of Understanding

The key oil and gas regulator, the CNSOPB, attempts to coordinate advice from the various other regulators when reviewing a general work authorization application. When it receives an application, the CNSOPB conducts an internal review of the various components of the application. The CNSOPB engages other agencies and the public through invitations to participate as members of its Benefits Review Committee[203] and Fisheries Advisory Committee (FAC).[204] FAC is comprised of representatives from federal and provincial agencies and representatives of various fishing associations in Nova Scotia and non-government bodies, if they have a particular interest in the proposed activity.[205] There is no representation on FAC from environmental non-governmental organizations and the general public.

Many of the agencies involved in the consultation process will already be part of the FEAC. They include:

- Fisheries and Oceans Canada;
- Canadian Environmental Assessment Agency;
- Environment Canada;
- Natural Resources Canada;
- Nova Scotia Department of Environment and Labour;
- Nova Scotia Department of Agriculture and Fisheries;
- Transport Canada: and
- Nova Scotia Department of Energy.

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[203] The Benefits Review Committee is composed of representatives from the Board, Natural Resources Canada, the Petroleum Directorate and other government agencies and departments, as may be appropriate.

[204] See CNSOPB Fisheries and Environmental Advisory Committee (FEAC) Terms of Reference, 3 April 2000.

[205] At the time of publication, FEAC included representatives from:
Governmental agencies: CNSOPB, Canadian Coast Guard, CEAA, Department of Fisheries and Oceans Canada, Environment Canada, Natural Resources Canada, NS Department of Environment and Labour, NS Department of Agriculture and Fisheries, Nova Scotia Department of Energy, and Transport Canada – Marine Safety.
First Nations: Netukulimkewe'l Commission.
Fishing Associations: Atlantic Canadian Mobile Shrimp Association, Nova Scotia Fish Packers Union, Guysborough County Inshore Fishermen's Association, Louisbourg Displaced Fulltime Fishermen's Association, Atlantic Herring Co-op Ltd., Crab Fishing Area 24 Crab Fishermen, Clearwater Fine Foods Inc., Western Cape Breton Snow Crab Fishermen, Gulf Fisheries Petroleum Advisory Board, Eastern Shore Fisheries Protective Association, Maritime Fishermen's Union, National Sea Products, Nova Scotia Swordfishermen's Association, and Seafood Producers' Association of Nova Scotia.
NGOs: Sable Island Preservation Trust.

Also, to carry out its mandated responsibilities, the CNSOPB is required to ensure effective coordination and avoid duplication of work and activities by concluding memoranda of understanding with federal and provincial agencies that also regulate aspects of petroleum activities (s. 46(1), *C-NSOPRAIA*). They include:

- DOE and MOT;
- NEB and NRCan (known at date of signature as Dept. of Energy, Mines and Resources);
- CCG, Canada-Nova Scotia Offshore Petroleum Board, Environment Canada, DFO, Natural Resources Canada, Nova Scotia Department of Natural Resources, CCG (Fleet Systems) and Transport Canada (Ship Safety);
- CNSOPB, CCG, Natural Resources Canada, Nova Scotia Department of Natural Resources, DFO and TSB;
- Natural Resources Canada (known at date of signature as Dept. of Energy, Mines and Resources) and CNSOPB;
- CNSOPB, Nova Scotia Dept. of Labour, Nova Scotia Natural Resources (known at date of signature as Dept. of Mines and Energy), Natural Resources Canada (known at date of signature as Dept. of Energy, Mines and Resources);
- CNSOPB and Canadian Transportation Accident Investigation and Safety Board (also included under Marine Transportation);
- CNSOPB and Environment Canada;
- CNSOPB and Environment Canada;
- Natural Resources Canada (known at the time of signatures as Dept. of Energy Mines and Resources) and CNSOPB;
- CNSOPB and Marine Safety, a division of Transport Canada; and
- SOEP and the Fishing Industry.

See the chart at the end of this chapter (Table 3-2) for a summary of these MOUs.

One key integration initiative is the MOU signed between CNSOPB and EC. EC has signed a Memorandum of Understanding with the CNSOPB,[206] to ensure effective coordination of work and activities between the two agencies in relation to petroleum activities in the Nova Scotia offshore. In particular, they have agreed to cooperate in:

- reviewing and assessing proposed projects in accordance with the applicable legislation and/or policies;
- reviewing and recommending regulations, guidelines and environmental practices including chemical use management and waste discharges;
- developing policies, procedures, coordinating mechanisms and auditing provisions for inspection; investigation, and enforcement activities;
- incident reporting and emergency response;
- designing programs to monitor environmental effects of offshore oil and gas activities on marine and coastal ecosystems and interpreting monitoring results;

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[206] See Memorandum of Understanding between the Canada-Nova Scotia Offshore Petroleum Board and Environment Canada, 1999. In order to operationalize the MOU, the two agencies develop annual Workplans to set out joint cooperation efforts.

- providing timely and accurate weather, sea and ice-state forecasts;
- promoting technology development and pollution prevention approaches including those associated with waste management activities; and
- development and delivery of training.

Also, the Petroleum Directorate has signed an important MOU with the Nova Scotia Department of the Environment and the Nova Scotia Department of Labour (these departments now the Nova Scotia Department of Environment and Labour), the Nova Scotia Department of Natural Resources (DNR), and the former Energy Resources Conservation Board to coordinate the provincial framework.[207]

Through this MOU, the provincial departments agree to cooperate and consult with each other regularly and to establish a one-window process, coordinated by the Directorate, as the primary means of promoting consultation and communication amongst themselves. Each Department is required to designate at least one staff member and an alternate to be members of the One Window Standing Committee. Through the One Window Standing Committee, the Departments will:

- develop and make available to all interested parties a comprehensive information package that identifies the regulatory requirements for petroleum activities;
- take steps to identify and reduce duplication and overlap leading to a more streamlined and efficient regulatory process; and
- on a timely basis at regularly scheduled meetings advise each other of any concerns that they may identify that relate to the other department's responsibility.

Despite agreement by the Departments to coordinate regulatory functions, nothing in the MOU affects the decision-making authority of each of the Departments.

3.2.7.10 International Integration

One of the key international instruments for the oil and gas sector is the Guidelines and standards for the removal of offshore installations and structures on the Continental Shelf and in the Exclusive Economic Zone. These Guidelines require that abandoned or disused offshore installations or structures in the EEZ or on the continental shelf be removed unless they can be left or partially removed in a manner consistent with these guidelines and standards. Coastal states have the responsibility to ensure that installations that are no longer in use are either removed or partially removed as soon as reasonably practicable.

These Guidelines were issued under the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention) of 1972, to which Canada is a Party. There are some new requirements in the guidelines that came into effect in 1998, including requirements for complete removal out to a depth of 100 metres, and the need for structures to be designed with removal in mind.

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[207] See Memorandum of Understanding among Nova Scotia Department of the Environment, Nova Scotia Department of Labour, Nova Scotia Department of Natural Resources, Nova Scotia Petroleum Directorate, and Energy and Mineral Resources Conservation Board signed 12 April 2000.

3.2.8 Recreation, Culture and Tourism

3.2.8.1 Key Regulatory Processes

Departments or agencies performing regulatory, advisory or research functions with respect to Recreation, Culture and Tourism include: Fisheries and Oceans Canada, Transport Canada, the Nova Scotia Department of Tourism and Culture, the Nova Scotia Department of Education, and the Nova Scotia Museum. For a brief description of each agency's mandate, please refer to the descriptions found in section 3.1, under "Description of Principal Regulatory/Advisory Bodies."

The following section outlines the various processes associated with respect to marine recreation, culture and tourism activities. It also sets out the various regulatory activities of the key agencies and identifies the integration efforts, either through formal agreements, as agreed to in MOUs or informal arrangements, such as information sharing or consultation.

Fisheries and Oceans Canada plays an important role in the Recreation, Culture and Tourism sector as it exercises multiple functions. One key function is to set regulations and policies for recreational fishing. In May 2001, Fisheries and Oceans Canada announced that a Marine Recreational Licence may be introduced for groundfish in Newfoundland and Labrador and eventually throughout Atlantic Canada, following consultation.[208] By paying a licence fee, the licensor will obtain a specified number of tags; as a condition of the licence, it is mandatory to affix these tags to any cod caught. This licensing system responds to the concerns of the Fisheries Resource Conservation Council (FRCC), which has recommended better control on the management of the recreational groundfish fishery in Newfoundland and Labrador.[209] Full implementation of the Recreational Licence Program throughout Atlantic Canada is proposed for 2002, following an assessment of the pilot program and consultations.[210]

Fisheries and Oceans Canada performs another important function in regulating recreational boating through the Canadian Coast Guard. The Canadian Coast Guard disseminates important information on current regulations governing recreational boating by publishing its Safe Boating Guide.[211] The relevant regulations include:

- *Canada Shipping Act*;
- *Small Vessel Regulations*, C.R.C., c. 1487;
- *Boating Restrictions Regulations*, C.R.C., c. 1407;
- Competency of Operators of Pleasure Craft Regulations, S.O.R./99-53; and
- Pleasure Craft Sewage Pollution Prevention Regulations, S.O.R./91-661.

In the event of any discrepancy between the *Safe Boating Guide* and the regulations, the regulatory text remains the final authority.

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[208] Fisheries and Oceans Canada, "Proposal for an Atlantic Marine Recreational Fishing Licence Program", online at: <http://www.ncr.dfo.ca/communic/fish_man/proatlrecfis/prop_e.htm> (date accessed: 2 August 2002).

[209] *Ibid.*

[210] *Ibid.*

[211] See online at: <http://www.ccg-gcc.gc.ca/obs-bsn/sbg-gsn/main_e.htm> for electronic copy of *Safe Boating Guide*.

A third important function performed by Fisheries and Oceans Canada is the designation of marine protected areas (hereinafter MPAs) pursuant to section 35 of the *Oceans Act*, described in detail under the sector of "Marine Conservation and Protection." Other important regulating departments include:

- Transport Canada: regulating the safety of fishing and passenger vessels over a minimal size and the prevention of collisions through the *Collision Regulations*, C.R.C., c. 1416; and
- Nova Scotia Department of Tourism and Culture, the Nova Scotia Department of Education, and the Nova Scotia Museum: all of which promote tourism / education of Nova Scotia, including its waters.

3.2.8.2 Sectoral Concerns

There is potential for eco-tourism on Sable Island and the Gully needs controls on ecotourists visiting the area for whale watching from cruise ships.

3.2.8.3 Intersectoral Conflicts

There has not been much documented evidence of intersectoral conflict with respect to the activities of marine recreation, culture and tourism.

3.2.8.4 Intersectoral Coordination and Memoranda of Understanding

To date, it appears that no Memoranda of Understanding have been signed between or among the various sectors with respect to Recreation, Culture and Tourism.

3.2.8.5 International Integration

UNESCO's World Heritage Site process may be enhanced if Canada coordinated its designations of MPAs and NMCAs pursuant to the Convention for the Protection of the World Cultural and Natural Heritage, signed by Canada on 23 November 1972.

Table 3-2 Table of Memoranda of Understanding Applicable to Eastern Scotian Shelf Oceans Management Area

1. Communications and Submarine Cables

Parties	Date of Signature	Summary of Contents	Status
To date, no MOUs found.			

2. Fisheries

Federal Parties	Date of Signature	Summary of Contents	Status
DFO/RCMP	Date?	Provides for appointment of RCMP regular members to be class designated as Fishery Officers	Valid
DFO/DND (MOU also included under Maritime Defence)	November 1986	DND assistance in arming DFO vessels and in training	Valid
DFO/DND (MOU also included under Maritime Defence)	Date?	MOU between DFO and DND regarding Surface Ship Patrols and Aerial Fisheries Surveillance	Valid
DFO/TSB (MOU also included under Marine Transportation)	November 1997	To govern the release of personal information held by DFO to TSB in order to facilitate the effective operation of TSB's responsibilities in advancing transportation safety.	Valid
Federal, Joint and Provincial Parties	**Date of Signature**	**Summary of Contents**	**Status**
NS Dept. of Agriculture and Fisheries (known at the time of signature as Dept. of Fisheries and Aquaculture) / NS Department of Environment and Labour / DFO / Environment Canada (MOU also under Marine Conservation and Protection)	September 1999	MOU regarding collaborative approaches to community-based sustainability initiatives, also creating a Steering Committee to implement the MOU	Valid
NS Dept. of Agriculture and Fisheries (known at the time of signature as Dept. of Fisheries and Aquaculture) / NS Department of Environment and Labour / DFO / Environment Canada (MOU also under Marine Conservation and Protection)	2000/2001	Work Plan to implement September 1999 MOU, includes following goals: establish administrative structure, departmental change, community partnerships, ongoing offshore initiatives with respect to the Scotian Shelf.	Valid
Industry Parties	**Date of Signature**	**Summary of Contents**	**Status**
SOEP/Fisheries Industry (MOU also included under Oil and Gas)	April 1997	Agreement on Offshore Commercial Fisheries Issues	Valid

3. Marine Conservation and Protection

Federal Parties	Date of Signature	Summary of Contents	Status
CCG/Department of Environment	April 1984	Use of CCG Aircraft in Support of Migratory Bird Surveillance Operations	Valid
CCG/Canada-Nova Scotia Offshore Petroleum Board/ Environment Canada/ DFO/ Energy, Mines and Resources/The Department of Natural Resources (MOU also included under Oil and Gas)	July 1993 Draft #2	Environmental Emergency Preparedness and Response in the Nova Scotia offshore area	Valid
CCG/Ports Canada (no longer exists) /Environment Canada/NS Department of Environment (MOU also included under Marine Transportation)		Oil Spill response in Halifax Harbour and approaches	Valid
DFO/Transport Canada (MOU also included under Marine Transportation)	April 1996	Marine Transportation Safety & Environmental Protection	HQ Document
CCG/Ports Canada Corporation (MOU also included under Marine Transportation)	Various	Environmental Emergencies and Pollution Reports	Valid
CCG/Environment Canada (MOU also included under Marine Transportation)		Use of CCG equipment for surveillance	Valid
DFO/DOE (MOU also included under Marine Transportation)	April 1997 (March 1998)	Assistance in maintaining level of federal human presence on Sable Island.	Valid
CCG/EC/DND (MOU also included under Marine Transportation and Maritime Defence)	March 1994	Canadian Forces assistance during national emergencies	Valid
DOE/MOT (MOU also included under Marine Conservation and Protection and Marine Transportation)	March 1995	MOU with respect to responding to the problems of oil spills and other hazardous materials	Valid
TC (Atlantic Region), DFO (CCG Newfoundland Region), EC (MOU also included under Marine Transportation)	5 August 1999	MOU with respect to the protection of seabirds from oil pollution from ships and responding to the problems of oil spills and other hazardous materials	Valid

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DFO/DND (MOU also included under Maritime Defence)	Date?	MOU between DFO and DND regarding Surface Ship Patrols and Aerial Fisheries Surveillance	Valid
DFO/TSB (MOU also included under Marine Transportation)	November 1997	To govern the release of personal information held by DFO to TSB in order to facilitate the effective operation of TSB's responsibilities in advancing transportation safety.	Valid
Federal, Joint and Provincial Parties	**Date of Signature**	**Summary of Contents**	**Status**
NS Dept. of Agriculture and Fisheries (known at the time of signature as Dept. of Fisheries and Aquaculture) / NS Department of Environment and Labour / DFO / Environment Canada (MOU also under Marine Conservation and Protection)	September 1999	MOU regarding collaborative approaches to community-based sustainability initiatives, also creating a Steering Committee to implement the MOU	Valid
NS Dept. of Agriculture and Fisheries (known at the time of signature as Dept. of Fisheries and Aquaculture) / NS Department of Environment and Labour / DFO / Environment Canada (MOU also under Marine Conservation and Protection)	2000/2001	Work Plan to implement September 1999 MOU, includes following goals: establish administrative structure, departmental change, community partnerships, ongoing offshore initiatives with respect to the Scotian Shelf.	Valid
Industry Parties	**Date of Signature**	**Summary of Contents**	**Status**
SOEP/Fisheries Industry (MOU also included under Oil and Gas)	April 1997	Agreement on Offshore Commercial Fisheries Issues	Valid

3. Marine Conservation and Protection

Federal Parties	Date of Signature	Summary of Contents	Status
CCG/Department of Environment	April 1984	Use of CCG Aircraft in Support of Migratory Bird Surveillance Operations	Valid
CCG/Canada-Nova Scotia Offshore Petroleum Board/ Environment Canada/ DFO/ Energy, Mines and Resources/The Department of Natural Resources (MOU also included under Oil and Gas)	July 1993 Draft #2	Environmental Emergency Preparedness and Response in the Nova Scotia offshore area	Valid
CCG/Ports Canada (no longer exists) /Environment Canada/NS Department of Environment (MOU also included under Marine Transportation)		Oil Spill response in Halifax Harbour and approaches	Valid
DFO/Transport Canada (MOU also included under Marine Transportation)	April 1996	Marine Transportation Safety & Environmental Protection	HQ Document
CCG/Ports Canada Corporation (MOU also included under Marine Transportation)	Various	Environmental Emergencies and Pollution Reports	Valid
CCG/Environment Canada (MOU also included under Marine Transportation)		Use of CCG equipment for surveillance	Valid
DFO/DOE (MOU also included under Marine Transportation)	April 1997 (March 1998)	Assistance in maintaining level of federal human presence on Sable Island.	Valid
CCG/EC/DND (MOU also included under Marine Transportation and Maritime Defence)	March 1994	Canadian Forces assistance during national emergencies	Valid
DOE/MOT (MOU also included under Marine Conservation and Protection and Marine Transportation)	March 1995	MOU with respect to responding to the problems of oil spills and other hazardous materials	Valid
TC (Atlantic Region), DFO (CCG Newfoundland Region), EC (MOU also included under Marine Transportation)	5 August 1999	MOU with respect to the protection of seabirds from oil pollution from ships and responding to the problems of oil spills and other hazardous materials	Valid

3. Marine Conservation and Protection (continued from previous page)

Federal, Joint and Provincial Parties	Date of Signature	Summary of Contents	Status
CNSOPB/ CCG/ NRCanada / NR Nova Scotia (MOU also under Oil and Gas and Marine Transportation)	October 1995	MOU entered into pursuant to s. 46 of the *C-NSOPRAIA* to ensure coordination with respect to Coast Guard and marine regulation; occupational safety and health; emergency measures; and other matters.	Valid
CNSOPB / Environment Canada (MOU also included under Oil and Gas)	12 April 2000	MOU entered into pursuant to section 46 of *C-NSOPRAIA*, to ensure effective coordination of work and activities in relation to petroleum activities in the NS offshore area	Valid
CNSOPB / Environment Canada (MOU also included under Oil and Gas)	2000	Work Plan to implement 12 April 2000 MOU, including the following projects: discharge of wastes, compliance policy, environmental effects monitoring, seabird monitoring and impacts, pollution prevention, environmental assessment, air quality monitoring on Sable Island, environmental audits, and reporting on progress	Valid
NS Dept. of Agriculture and Fisheries (known at the time of signature as Dept. of Fisheries and Aquaculture) / NS Department of Environment and Labour/ DFO /Environment Canada (MOU also under Marine Conservation and Protection)	September 1999	MOU regarding collaborative approaches to community-based sustainability initiatives, also creating a Steering Committee to implement the MOU	Valid
NS Dept. of Agriculture and Fisheries (known at the time of signature as Dept. of Fisheries and Aquaculture) / NS Department of Environment and Labour / DFO / Environment Canada (MOU also under Marine Conservation and Protection)	2000/2001	Work Plan to implement September 1999 MOU, includes following goals: establish administrative structure, departmental change, community partnerships, ongoing offshore initiatives with respect to the Scotian Shelf.	Valid

4. Marine Science and Technology

Federal Parties	Date of Signature	Summary of Contents	Status
CCG/Atmospheric Environment Services	June 1992	Deployment and maintenance of deep-sea and shelf meteorological anchored buoys in the Northwest Atlantic	Valid

5. Marine Transportation

Federal Parties	Date of Signature	Summary of Contents	Status
Transport Canada/CTAISB	February 1994	Reporting of occurrences	Requires Updating
DND/TC (now CCG/DFO) (MOU also included under Maritime Defence)		Employment of TC (now CCG) vessels in a national emergency (8 vessels & 12 motor launches)	Requires Updating
TC/CTAISB	February 1994	Refers to activities with respect to marine, rail, aviation and commodity pipeline transportation involving both parties.	Valid
CCG (Fleet Systems) and TC (Ship Safety)	April 1991	Training & Secondment of Ships' Officers (SO MAO) to Ship Safety Inspection Duties	Valid
DFO/TSB (MOU also included under Fisheries)	November 1997	To govern the release of personal information held by DFO to TSB in order to facilitate the effective operation of TSB's responsibilities in advancing transportation safety.	Valid
CCG/Health Canada	May 1997	Provision of Medical Services and the Acquisition of Pharmaceutical and Medical Supplies aboard CCG Ships	Valid
Canadian Marine Rescue Auxiliary/Canadian Marine Rescue Auxiliary Member		Summarize the SAR objective of the CMRA, along with terms, conditions and benefits that apply to volunteers.	HQ Document AMR-Being Updated -Valid
CCG/Ports Canada (no longer exists) /Environment Canada/NS Department of Environment (MOU also included under Marine Conservation and Protection)		Oil Spill response in Halifax Harbour and approaches	Being Updated
CCG (SAR)/CMRA National Council	September 1991	Develop and maintain productive and harmonious working relationship between CMRA and CCG	HQ Document AMR-Being Updated - Valid
DFO/Transport Canada (MOU also included under Marine Conservation and Protection)	April 1996	Marine Transportation Safety & Environmental Protection	HQ Document
CCG/Ports Canada Corporation (no longer exists) (MOU also included under Marine Conservation and Protection)	Various	Environmental Emergencies and Pollution Reports	Being Updated

3. Marine Conservation and Protection (continued from previous page)

Federal, Joint and Provincial Parties	Date of Signature	Summary of Contents	Status
CNSOPB/ CCG/ NRCanada / NR Nova Scotia (MOU also under Oil and Gas and Marine Transportation)	October 1995	MOU entered into pursuant to s. 46 of the *C-NSOPRAIA* to ensure coordination with respect to Coast Guard and marine regulation; occupational safety and health; emergency measures; and other matters.	Valid
CNSOPB / Environment Canada (MOU also included under Oil and Gas)	12 April 2000	MOU entered into pursuant to section 46 of *C-NSOPRAIA*, to ensure effective coordination of work and activities in relation to petroleum activities in the NS offshore area	Valid
CNSOPB / Environment Canada (MOU also included under Oil and Gas)	2000	Work Plan to implement 12 April 2000 MOU, including the following projects: discharge of wastes, compliance policy, environmental effects monitoring, seabird monitoring and impacts, pollution prevention, environmental assessment, air quality monitoring on Sable Island, environmental audits, and reporting on progress	Valid
NS Dept. of Agriculture and Fisheries (known at the time of signature as Dept. of Fisheries and Aquaculture) / NS Department of Environment and Labour/ DFO /Environment Canada (MOU also under Marine Conservation and Protection)	September 1999	MOU regarding collaborative approaches to community-based sustainability initiatives, also creating a Steering Committee to implement the MOU	Valid
NS Dept. of Agriculture and Fisheries (known at the time of signature as Dept. of Fisheries and Aquaculture) / NS Department of Environment and Labour / DFO / Environment Canada (MOU also under Marine Conservation and Protection)	2000/2001	Work Plan to implement September 1999 MOU, includes following goals: establish administrative structure, departmental change, community partnerships, ongoing offshore initiatives with respect to the Scotian Shelf.	Valid

4. Marine Science and Technology

Federal Parties	Date of Signature	Summary of Contents	Status
CCG/Atmospheric Environment Services	June 1992	Deployment and maintenance of deep-sea and shelf meteorological anchored buoys in the Northwest Atlantic	Valid

5. Marine Transportation

Federal Parties	Date of Signature	Summary of Contents	Status
Transport Canada/CTAISB	February 1994	Reporting of occurrences	Requires Updating
DND/TC (now CCG/DFO) (MOU also included under Maritime Defence)		Employment of TC (now CCG) vessels in a national emergency (8 vessels & 12 motor launches)	Requires Updating
TC/CTAISB	February 1994	Refers to activities with respect to marine, rail, aviation and commodity pipeline transportation involving both parties.	Valid
CCG (Fleet Systems) and TC (Ship Safety)	April 1991	Training & Secondment of Ships' Officers (SO MAO) to Ship Safety Inspection Duties	Valid
DFO/TSB (MOU also included under Fisheries)	November 1997	To govern the release of personal information held by DFO to TSB in order to facilitate the effective operation of TSB's responsibilities in advancing transportation safety.	Valid
CCG/Health Canada	May 1997	Provision of Medical Services and the Acquisition of Pharmaceutical and Medical Supplies aboard CCG Ships	Valid
Canadian Marine Rescue Auxiliary/Canadian Marine Rescue Auxiliary Member		Summarize the SAR objective of the CMRA, along with terms, conditions and benefits that apply to volunteers.	HQ Document AMR-Being Updated -Valid
CCG/Ports Canada (no longer exists) /Environment Canada/NS Department of Environment (MOU also included under Marine Conservation and Protection)		Oil Spill response in Halifax Harbour and approaches	Being Updated
CCG (SAR)/CMRA National Council	September 1991	Develop and maintain productive and harmonious working relationship between CMRA and CCG	HQ Document AMR-Being Updated - Valid
DFO/Transport Canada (MOU also included under Marine Conservation and Protection)	April 1996	Marine Transportation Safety & Environmental Protection	HQ Document
CCG/Ports Canada Corporation (no longer exists) (MOU also included under Marine Conservation and Protection)	Various	Environmental Emergencies and Pollution Reports	Being Updated

5. Marine Transportation (continued from previous page)

Federal Parties	Date of Signature	Summary of Contents	Status
CCG/Environment Canada (MOU also included under Marine Conservation and Protection)		Use of CCG equipment for surveillance	Valid
Fleet Systems/Telecommunications & Electronics/SAR (CCG) (MOU also included under Maritime Defence)	January 1990	Integration of Ships' Radio Officers (SO-RAD) Fleet Systems and T&E	Valid
Regional Ops & Coordination Centre/Regional Coordinator of Operations (CCG)	November 1991	Responsibilities and authorities to be assigned to the Regional Coordinator of Operations	Valid
Search and Rescue/Fleet Systems (CCG)	November 1993	Maintenance and Repair of Small Vessels by ESC Mulgrave	Being Updated
DFO/DOE (MOU also included under Marine Conservation and Protection)	April 1997 (March 1998)	Assistance in maintaining level of federal human presence on Sable Island.	Valid
DND/TC (now under CCG-DFO) (MOU also included under Maritime Defence)		Control of Aids to navigation in a National Emergency	Valid
TC (now CCG-DFO)/DND (MOU also included under Maritime Defence)	1977	Combating Oil Spills - CCG can request resources/ assistance directly through DND Operations Centre to respond to marine spill incidents.	Being Updated
DND/Transport Canada (now CCG-DFO) (MOU also included under Maritime Defence)		Provision of Vessel Traffic and Marine Information Services in a National Emergency	HQ Doc. – These two MOUs should be combined and updated for MCTS
DND/DOT (now CCG-DFO) (MOU also included under Marine Defence)		Provision of Coast Guard Radio Stations in an Emergency	Valid
CCG/EC/DND (MOU also included under Marine Conservation and Protection and Maritime Defence)	March 1994	Canadian Forces assistance during national emergencies	Updating
DOE/MOT (MOU also included under Oil and Gas and Marine Conservation and Protection)	March 1995	MOU with respect to responding to the problems of oil spills and other hazardous materials	Valid

5. Marine Transportation (continued from previous page)

Federal Parties	Date of Signature	Summary of Contents	Status
TC (Atlantic Region)/ DFO (CCG Newfoundland Region)/ EC (MOU also included under Marine Conservation / Protection)	5 August 1999	MOU with respect to the protection of seabirds from oil pollution from ships respect to responding to the problems of oil spills and other hazardous materials	Valid
HRDC/TC	June 1998	Application & enforcement of Canada Labour Code occurrences	Valid
Federal, Joint and Provincial Parties	**Date of Signature**	**Summary of Contents**	**Status**
CNSOPB/CCG/NRCanada / NR Nova Scotia (MOU also under Oil and Gas and Marine Conservation and Protection)	October 1995	MOU entered into pursuant to s. 46 of the C-NSOPRAIA to ensure coordination with respect to Coast Guard and marine regulation; occupational safety and health; emergency measures; and other matters.	Valid
CNSOPB/Canadian Transportation Accident Investigation and Safety Board (MOU also included under Marine Transportation)	November 1995	MOU made pursuant to the *C-NSOPRAIA*, outlining cooperation initiatives between the two boards regarding notification of a transportation occurrence, exchange of occurrence information, concurrent investigations, media relations, cost recovery, resolution of issues, and consultation.	Valid

6. Maritime Defence

Federal Parties	Date of Signature	Summary of Contents	Status
Canadian Coast Guard/Royal Canadian Mounted Police	August 1995	Assistance by CCG in support of RCMP in its law enforcement role	Valid
CCG/RCMP		Requests for resources and information from the Operations Centre	Valid
CCG/Solicitor General (RCMP)	August 1985	CCG to provide helicopter/vessel platform support to RCMP for law enforcement purposes.	Valid
DND/TC (now CCG-DFO) (MOU also included under Marine Transportation)		Employment of TC (now CCG-DFO) vessels in a national emergency (8 vessels & 12 motor launches)	Valid

5. Marine Transportation (continued from previous page)

Federal Parties	Date of Signature	Summary of Contents	Status
CCG/Environment Canada (MOU also included under Marine Conservation and Protection)		Use of CCG equipment for surveillance	Valid
Fleet Systems/Telecommunications & Electronics/SAR (CCG) (MOU also included under Maritime Defence)	January 1990	Integration of Ships' Radio Officers (SO-RAD) Fleet Systems and T&E	Valid
Regional Ops & Coordination Centre/Regional Coordinator of Operations (CCG)	November 1991	Responsibilities and authorities to be assigned to the Regional Coordinator of Operations	Valid
Search and Rescue/Fleet Systems (CCG)	November 1993	Maintenance and Repair of Small Vessels by ESC Mulgrave	Being Updated
DFO/DOE (MOU also included under Marine Conservation and Protection)	April 1997 (March 1998)	Assistance in maintaining level of federal human presence on Sable Island.	Valid
DND/TC (now under CCG-DFO) (MOU also included under Maritime Defence)		Control of Aids to navigation in a National Emergency	Valid
TC (now CCG-DFO)/DND (MOU also included under Maritime Defence)	1977	Combating Oil Spills - CCG can request resources/ assistance directly through DND Operations Centre to respond to marine spill incidents.	Being Updated
DND/Transport Canada (now CCG-DFO) (MOU also included under Maritime Defence)		Provision of Vessel Traffic and Marine Information Services in a National Emergency	HQ Doc. – These two MOUs should be combined and updated for MCTS
DND/DOT (now CCG-DFO) (MOU also included under Marine Defence)		Provision of Coast Guard Radio Stations in an Emergency	Valid
CCG/EC/DND (MOU also included under Marine Conservation and Protection and Maritime Defence)	March 1994	Canadian Forces assistance during national emergencies	Updating
DOE/MOT (MOU also included under Oil and Gas and Marine Conservation and Protection)	March 1995	MOU with respect to responding to the problems of oil spills and other hazardous materials	Valid

5. Marine Transportation (continued from previous page)

Federal Parties	Date of Signature	Summary of Contents	Status
TC (Atlantic Region)/ DFO (CCG Newfoundland Region)/ EC (MOU also included under Marine Conservation / Protection)	5 August 1999	MOU with respect to the protection of seabirds from oil pollution from ships respect to responding to the problems of oil spills and other hazardous materials	Valid
HRDC/TC	June 1998	Application & enforcement of Canada Labour Code occurrences	Valid
Federal, Joint and Provincial Parties	**Date of Signature**	**Summary of Contents**	**Status**
CNSOPB/CCG/NRCanada / NR Nova Scotia (MOU also under Oil and Gas and Marine Conservation and Protection)	October 1995	MOU entered into pursuant to s. 46 of the C-NSOPRAIA to ensure coordination with respect to Coast Guard and marine regulation; occupational safety and health; emergency measures; and other matters.	Valid
CNSOPB/Canadian Transportation Accident Investigation and Safety Board (MOU also included under Marine Transportation)	November 1995	MOU made pursuant to the *C-NSOPRAIA*, outlining cooperation initiatives between the two boards regarding notification of a transportation occurrence, exchange of occurrence information, concurrent investigations, media relations, cost recovery, resolution of issues, and consultation.	Valid

6. Maritime Defence

Federal Parties	Date of Signature	Summary of Contents	Status
Canadian Coast Guard/Royal Canadian Mounted Police	August 1995	Assistance by CCG in support of RCMP in its law enforcement role	Valid
CCG/RCMP		Requests for resources and information from the Operations Centre	Valid
CCG/Solicitor General (RCMP)	August 1985	CCG to provide helicopter/vessel platform support to RCMP for law enforcement purposes.	Valid
DND/TC (now CCG-DFO) (MOU also included under Marine Transportation)		Employment of TC (now CCG-DFO) vessels in a national emergency (8 vessels & 12 motor launches)	Valid

6. Maritime Defence (continued from previous page)

Federal Parties	Date of Signature	Summary of Contents	Status
DFO/DND (MOU also included under Fisheries)	November 1986	DND assistance in arming DFO vessels and in training	Valid
DFO/TC (now CCG-DFO)	October 1997 DRAFT	Provision of Maintenance and Flight Crew Services for the CCG Helicopter Fleet.	Valid
TC/DND/CPC (no longer exists)	May 1990	Deployment and subsequent operations of the Canadian Forces from CPC ports (no longer exists) during a period of tension or war.	Valid
CCG/DND	September 1990	Deployment and Reporting structure for CCG Units in a national emergency situation	Valid
CCG (Fleet Systems) and TC (Ship Safety)	April 1991	Training & Secondment of Ships' Officers (SO MAO) to Ship Safety Inspection Duties	Valid
DFO/DND (MOU also included under Fisheries)		MOU between DFO and DND regarding Surface Ship Patrols and Aerial Fisheries Surveillance	Valid
Fleet Systems/Telecommunications & Electronics/SAR (CCG) (MOU also included under Marine Transportation)	January 1990	Integration of Ships' Radio Officers (SO-RAD) Fleet Systems and T&E	Valid
DND/TC (now CCG-DFO) (MOU also included under Marine Transportation)		Control of Aids to navigation in a National Emergency	Valid
TC (now CCG-DFO)/DND (MOU also included under Marine Transportation)	1977	Combating Oil Spills - CCG can request resources/ assistance directly through DND Operations Centre to respond to marine spill incidents.	Being Updated
DND/Transport Canada (now CCG-DFO) (MOU also included under Marine Transportation)		Provision of Vessel Traffic and Marine Information Services in a National Emergency	HQ Document – These two MOUs should be combined and updated for MCTS

6. Maritime Defence (continued from previous page)

Federal Parties	Date of Signature	Summary of Contents	Status
DND/DOT (now CCG-DFO) (MOU also included under Marine Transportation)		Provision of Coast Guard Radio Stations in an Emergency	Valid
CCG/EC/DND (MOU also included under Marine Conservation and Protection and Marine Transportation)	March 1994	Canadian Forces assistance during national emergencies	Updating

7. Oil and Gas

Federal Parties	Date of Signature	Summary of Contents	Status
DOE/MOT (MOU also included under Marine Conservation and Protection and Marine Transportation)	March 1995	MOU with respect to responding to the problems of oil spills and other hazardous materials	Valid
NEB/NRCan (known at date of signature as Dept. of Energy, Mines and Resources	October 1992	MOU concerning the sharing of technical advice and information with respect to oil and gas industry activities, review and assessments, legislation and regulations, and emergency response and significant events	Valid
Federal, Joint and Provincial Parties	**Date of Signature**	**Summary of Contents**	**Status**
CCG/Canada-Nova Scotia Offshore Petroleum Board/ Environment Canada/ DFO/ Energy, Mines and Resources/The Department of Natural Resources (MOU also included under Marine Conservation and Protection)	July 1993 Draft #2	Environmental Emergency Preparedness and Response in the Nova Scotia offshore area	Being Updated
MOU between the Canada-Nova Scotia Offshore Petroleum Board and the Department of Fisheries and Oceans	April 7, 2004	Facilitate and promote sound integrated management of activities and measures related to exploration, development, production and abandonment of offshore petroleum resources; Ensure conservation and protection of commercial and non-commercial fish species and their habitat; biodiversity; the marine environment in general; Ensure safe navigation.	Valid
CNSOPB/ CCG/ NRCanada / NR Nova Scotia (MOU also under Marine Conservation and Protection and Marine Transportation)	October 1995	MOU entered into pursuant to section 46 of the *C-NSOPRAIA* to ensure coordination with respect to Coast Guard and marine regulation; occupational safety and health; emergency measures; and other matters.	Valid

6. Maritime Defence (continued from previous page)

Federal Parties	Date of Signature	Summary of Contents	Status
DFO/DND (MOU also included under Fisheries)	November 1986	DND assistance in arming DFO vessels and in training	Valid
DFO/TC (now CCG-DFO)	October 1997 DRAFT	Provision of Maintenance and Flight Crew Services for the CCG Helicopter Fleet.	Valid
TC/DND/CPC (no longer exists)	May 1990	Deployment and subsequent operations of the Canadian Forces from CPC ports (no longer exists) during a period of tension or war.	Valid
CCG/DND	September 1990	Deployment and Reporting structure for CCG Units in a national emergency situation	Valid
CCG (Fleet Systems) and TC (Ship Safety)	April 1991	Training & Secondment of Ships' Officers (SO MAO) to Ship Safety Inspection Duties	Valid
DFO/DND (MOU also included under Fisheries)		MOU between DFO and DND regarding Surface Ship Patrols and Aerial Fisheries Surveillance	Valid
Fleet Systems/Telecommunications & Electronics/SAR (CCG) (MOU also included under Marine Transportation)	January 1990	Integration of Ships' Radio Officers (SO-RAD) Fleet Systems and T&E	Valid
DND/TC (now CCG-DFO) (MOU also included under Marine Transportation)		Control of Aids to navigation in a National Emergency	Valid
TC (now CCG-DFO)/DND (MOU also included under Marine Transportation)	1977	Combating Oil Spills - CCG can request resources/ assistance directly through DND Operations Centre to respond to marine spill incidents.	Being Updated
DND/Transport Canada (now CCG-DFO) (MOU also included under Marine Transportation)		Provision of Vessel Traffic and Marine Information Services in a National Emergency	HQ Document – These two MOUs should be combined and updated for MCTS

6. Maritime Defence (continued from previous page)

Federal Parties	Date of Signature	Summary of Contents	Status
DND/DOT (now CCG-DFO) (MOU also included under Marine Transportation)		Provision of Coast Guard Radio Stations in an Emergency	Valid
CCG/EC/DND (MOU also included under Marine Conservation and Protection and Marine Transportation)	March 1994	Canadian Forces assistance during national emergencies	Updating

7. Oil and Gas

Federal Parties	Date of Signature	Summary of Contents	Status
DOE/MOT (MOU also included under Marine Conservation and Protection and Marine Transportation)	March 1995	MOU with respect to responding to the problems of oil spills and other hazardous materials	Valid
NEB/NRCan (known at date of signature as Dept. of Energy, Mines and Resources	October 1992	MOU concerning the sharing of technical advice and information with respect to oil and gas industry activities, review and assessments, legislation and regulations, and emergency response and significant events	Valid
Federal, Joint and Provincial Parties	**Date of Signature**	**Summary of Contents**	**Status**
CCG/Canada-Nova Scotia Offshore Petroleum Board/ Environment Canada/ DFO/ Energy, Mines and Resources/The Department of Natural Resources (MOU also included under Marine Conservation and Protection)	July 1993 Draft #2	Environmental Emergency Preparedness and Response in the Nova Scotia offshore area	Being Updated
MOU between the Canada-Nova Scotia Offshore Petroleum Board and the Department of Fisheries and Oceans	April 7, 2004	Facilitate and promote sound integrated management of activities and measures related to exploration, development, production and abandonment of offshore petroleum resources; Ensure conservation and protection of commercial and non-commercial fish species and their habitat; biodiversity; the marine environment in general; Ensure safe navigation.	Valid
CNSOPB/ CCG/ NRCanada / NR Nova Scotia (MOU also under Marine Conservation and Protection and Marine Transportation)	October 1995	MOU entered into pursuant to section 46 of the *C-NSOPRAIA* to ensure coordination with respect to Coast Guard and marine regulation; occupational safety and health; emergency measures; and other matters.	Valid

7. Oil and Gas (continued from previous page)

Industry Parties	Date of Signature	Summary of Contents	Status
NR Can (known at date of signature as Dept. of Energy, Mines and Resources) / CNSOPB	July 1990	MOU concerning the storage and curation of geological and geophysical reports, records, information and data and well history reports and materials resulting from oil and gas exploration in the Nova Scotia offshore area	Valid
CNSOPB / NS Dept. of Labour / NS Natural Resources (known at date of signature as Dept. of Mines and Energy) / NR Can (known at date of signature as Dept. of Energy, Mines and Resources)	January 1991	MOU concerning the regulation of occupational health and safety in the Nova Scotia offshore area; cooperation with respect to inspection and investigation, reports, and training of workers and inspectors	Valid
CNSOPB / Canadian Transportation Accident Investigation and Safety Board (MOU also included under Marine Transportation)	November 1995	MOU made pursuant to the *C-NSOPRAIA*, outlining cooperation initiatives between the two boards regarding notification of a transportation occurrence, exchange of occurrence information, concurrent investigations, media relations, cost recovery, resolution of issues, and consultation.	Valid
CNSOPB / Environment Canada (MOU also included under Marine Conservation and Protection)	12 April 2000	MOU entered into pursuant to section 46 of *C-NSOPRAIA*, to ensure effective coordination of work and activities in relation to petroleum activities in the NS offshore area	Valid
CNSOPB / Environment Canada (MOU also included under Marine Conservation and Protection)	2000	Work Plan to implement 12 April 2000 MOU, including the following projects: discharge of wastes, compliance policy, environmental effects monitoring, seabird monitoring and impacts, pollution prevention, environmental assessment, air quality monitoring on Sable Island, environmental audits, and reporting on progress	Valid
NRCan (known at the time of signatures as Dept. of Energy Mines and Resources) / CNSOPB	March 1992	MOU concerning access to confidential information and documentation of the CNSOPB by the Geological Survey of Canada	Valid
CNSOPB / Marine Safety, a division of the Department of Transport (Canada)	Draft dated 14 September 2000 (as of January 2001, still in draft form).	MOU made pursuant to section 46 of the *C-NSOPRAIA*, concerning the coordination of marine safety, occupation safety and health, environmental protection measures, and other appropriate measures.	Draft form

SOEP/Fisheries Industry (also included under Oil and Gas)	April 1997	Agreement on Offshore Commercial Fisheries Issues	Valid

8. Recreation, Culture and Tourism

Parties	Date of Signature	Summary of Contents	Status
To date, no MOUs found.			

7. Oil and Gas (continued from previous page)

NR Can (known at date of signature as Dept. of Energy, Mines and Resources) / CNSOPB	July 1990	MOU concerning the storage and curation of geological and geophysical reports, records, information and data and well history reports and materials resulting from oil and gas exploration in the Nova Scotia offshore area	Valid
CNSOPB / NS Dept. of Labour / NS Natural Resources (known at date of signature as Dept. of Mines and Energy) / NR Can (known at date of signature as Dept. of Energy, Mines and Resources)	January 1991	MOU concerning the regulation of occupational health and safety in the Nova Scotia offshore area; cooperation with respect to inspection and investigation, reports, and training of workers and inspectors	Valid
CNSOPB / Canadian Transportation Accident Investigation and Safety Board (MOU also included under Marine Transportation)	November 1995	MOU made pursuant to the *C-NSOPRAIA*, outlining cooperation initiatives between the two boards regarding notification of a transportation occurrence, exchange of occurrence information, concurrent investigations, media relations, cost recovery, resolution of issues, and consultation.	Valid
CNSOPB / Environment Canada (MOU also included under Marine Conservation and Protection)	12 April 2000	MOU entered into pursuant to section 46 of *C-NSOPRAIA*, to ensure effective coordination of work and activities in relation to petroleum activities in the NS offshore area	Valid
CNSOPB / Environment Canada (MOU also included under Marine Conservation and Protection)	2000	Work Plan to implement 12 April 2000 MOU, including the following projects: discharge of wastes, compliance policy, environmental effects monitoring, seabird monitoring and impacts, pollution prevention, environmental assessment, air quality monitoring on Sable Island, environmental audits, and reporting on progress	Valid
NRCan (known at the time of signatures as Dept. of Energy Mines and Resources) / CNSOPB	March 1992	MOU concerning access to confidential information and documentation of the CNSOPB by the Geological Survey of Canada	Valid
CNSOPB / Marine Safety, a division of the Department of Transport (Canada)	Draft dated 14 September 2000 (as of January 2001, still in draft form).	MOU made pursuant to section 46 of the *C-NSOPRAIA*, concerning the coordination of marine safety, occupation safety and health, environmental protection measures, and other appropriate measures.	Draft form
Industry Parties	**Date of Signature**	**Summary of Contents**	**Status**

SOEP/Fisheries Industry (also included under Oil and Gas)	April 1997	Agreement on Offshore Commercial Fisheries Issues	Valid

8. Recreation, Culture and Tourism

Parties	**Date of Signature**	**Summary of Contents**	**Status**
To date, no MOUs found.			

4.0 INTERNATIONAL LEGAL INSTRUMENTS

4.1 Introduction

All sectors are regulated by Canadian law. This law may have its origin in or be designed to implement international legal instruments. Canadian regulation may also be influenced by the ideas set out in international "soft (non-binding) law" such as declarations or programmes of action.

The purpose of this section is to set out the key international instruments that are relevant to the various ESSIM sectors. These instruments include, *inter alia*: treaties, conventions, protocols, codes of conduct, agreements, declarations, and plans or programs of action. This myriad of legal instruments reflects the variety of functions the different instruments perform. Typical functions include: the establishment of norms; the promotion of aspirations or ideals; the creation of institutional bodies; and the regulation of an industry.[212]

It is beyond the scope of this document to evaluate the effectiveness of each instrument. Instead, this section is intended to provide a general overview of the existing types of instruments, allowing for easy comparison in order to encourage dialogue with respect to the differences in regulation across the various sectors. It also indicates the level of international integration as it summarizes the domestic legislation and policy that have been initiated in order to implement the various international instruments.

As with the domestic law and policy section, this section is structured by sectors. Such an approach is justified as ocean uses have traditionally been regulated on a sectoral basis. It is only after the United Nations Convention on the Law of the Sea (LOSC)[213] was signed in 1982 that states formally began to address cross-sectoral international ocean governance. The LOSC, whose purpose is to devise a comprehensive legal framework for the conduct and regulation of all marine sector activities, is widely considered one of the most complex treaties in the history of international relations. The LOSC is divided into 17 parts and nine annexes containing provisions governing:

- the limits of national jurisdiction over ocean space;
- access to the seas;
- navigation protection and preservation of the marine environment;
- sustainable management of marine living resources;
- non-living marine resources exploitation;
- marine scientific research; and
- the settlement of disputes.

Parts II–VI deal with areas of national jurisdiction, identifying the limits of various maritime zones of jurisdiction and specifying the legal rights of states within each. These different maritime areas include internal waters (Article 8(1)), territorial sea (Article 2), contiguous zone (Article 33), exclusive economic zone (EEZ) (Article 55), continental shelf (Article 76), the high seas (Article 86), and sea-bed beyond national jurisdiction (referred to as the "Area" in the Convention) (Article 1 and Article 137). Canada implemented these provisions through the *Oceans Act*. Canada ratified the Law of the Sea Convention on 7 November 2003.

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[212] D. M. Johnston, *Consent and Commitment in the World Community: The Classification of International Instruments* (Irvington-on-Hudson, NY: Transnational Publishers, Inc., 1997) at 203, 233–246.

[213] United Nations Convention on the Law of the Sea (LOSC), 10 December 1982, UN Doc. A/CONF. 62/122, reprinted in (1982) 21 I.L.M. 1261, entered into force: 16 November 1994.

Part VIII, comprising one Article (Article 121), deals with islands. An island is "a naturally formed area of land, surrounded by water, which is above water at high tide". This definition allows the establishment of a territorial sea, contiguous zone, EEZ and continental shelf. Sable Island has permitted the extension of Canadian jurisdiction further into the Northwest Atlantic. For maritime navigation activities, the LOSC states that "freedom of the high seas" begins after the territorial sea. Ships of all states are free to navigate in the region of the high seas, but this freedom must exercise "due regard for the interests of other states in their exercise of the freedom of the high seas, and also with due regard for the rights under the Convention with respect to activities in the Area" (Article 87). The relevance of this article to the eastern Scotian Shelf relates to the voluntary guidelines requesting shipmasters to exercise due regard for Canada's environmental interests by avoiding passage through the Gully Whale Sanctuary.

Part XI and Annexes III and IV regulate the regime governing exploration and exploitation of mineral resources of the deep seabed beyond coastal state jurisdiction. Part XI introduces environmental impact assessments and other systems of management that are necessary for the protection of the marine environment of the high seas from deep seabed mineral exploitation. The eastern Scotian Shelf is a potential source for deep seabed aggregate extraction. A Canadian management regime for offshore minerals is lacking and questions regarding ownership and jurisdictional issues between Nova Scotia, Newfoundland and the Government of Canada remain unresolved.

Part XII provides a comprehensive framework of measures to protect the marine environment. This part imposes an obligation on all states to protect and preserve the marine environment and to enact appropriate legislation to give effect to their obligations. The federal *Oceans Act* contributes to fulfilling this obligation through provisions for integrated management plans, marine protected areas, and marine environmental quality guidelines. The Act is based on the principles of the precautionary approach, sustainable development, integrated management, ecosystem approach and collaborative approach.

Part XV establishes a regime for dispute resolution in relation to ocean use. It provides options for dispute resolution, including: (i) the International Tribunal on the Law of the Sea; (ii) the International Court of Justice; (iii) Arbitration in accordance with Annex VII to the LOSC; and (iv) Special Arbitration in accordance with Annex VIII to the LOSC. International dispute resolution regarding the ESSIM area could arise between Canada and France (in respect of St. Pierre and Miquelon) with respect to fisheries, oil and gas, or potential ocean mining activity.

The importance of the LOSC in the regulation of a number of sectors is reflected in the organization of Part XV. Whereas most instruments are only described under one sector, the provisions of the LOSC are examined under numerous sectors in the charts and summaries below.

4.2 Key International Legal Instruments by Sector

The following is a listing of the key international legal instruments governing the ESSIM area sectors, to encourage quick comparison across the sectors. It is divided by the following sectors:

- Communications and Submarine Cables;
- Fisheries;
- Marine Conservation and Protection (i.e., non-consumptive uses, conservation areas);
- Marine Science and Technology;
- Marine Transportation;
- Maritime Defence;
- Oil and Gas; and
- Recreation, Culture and Tourism.

4.2.1 Communications and Submarine Cables

1 Convention for the Protection of Submarine Cables, 14 March 1884, 163 Parry 391, entered into force: 1 May 1888; Protocol, with draft of declaration, interpreting articles 2 and 4 of the Convention for the Protection of Submarine Cables of March 14, 1884, 21 May 1886, TS 380-1; Declaration explanatory of the Convention of March 14, 1884, for the Protection of Submarine Cables, with Closing Protocol of July 7, 1887, 1 December 1886, 168 Parry 337, entered into force: 1 May 1888; and Protocol respecting the date on which the Convention of March 14, 1884, for the Protection of Submarine Cables, should be put into force, 7 July 1887, 169 Parry 375, entered into force: 7 July 1887.

2 Convention on the International Maritime Satellite Organization and Operating Agreement on the International Maritime Satellite Organization (INMARSAT), 3 September 1976, 1143 U.N.T.S. 105 and 213, entered into force 16 July 1979; Protocol on the privileges and immunities of the International Maritime Satellite Organization, 1 December 1981, 1328 U.N.T.S. 149, entered into force 30 July 1983; Amendments to the Convention on the International Maritime Satellite Organization (INMARSAT) of September 3, 1976 and to the Operating Agreement, 16 October 1985, C.T.S. 1989/48, reprinted in 27 I.L.M. 691, entered into force: 13 October 1989; Amendments to Convention, 19 January 1989, Amendments to Operating Agreement, 9 December 1994 (entry into force of amendments on various dates).

3 United Nations Convention on the Law of the Sea (LOSC), 10 December 1982, UN Doc. A/CONF. 62/122, reprinted in (1982) 21 I.L.M. 1261, available online: <http://www.un.org/depts/los/convention_agreements/convention_overview_convention.htm>, entered into force: 16 November 1994; entered into force for Canada: 7 December 2003.

4 Constitution of the International Telecommunications Union and Convention of the International Telecommunications Union, 22 December 1992, (1996) B.T.S. 24, online: <http://www.itu.int/publications/docs/basictexts.html> entered into force: 1 July 1992.

4.2.2 Fisheries

1 International Convention for the Regulation of Whaling, 2 December 1946, 161 U.N.T.S. 72, entered into force: 10 November 1948; online: <http://www.iwcoffice.org/Convention.htm> and Protocol to the International Convention for the Regulation of Whaling of December 2, 1946, 19 November 1956, 338 U.N.T.S. 366, entered into force 4 May 1959.

2 Convention on Fishing and Conservation of Living Resources of the High Seas, 29 April 1958, 559 U.N.T.S. 285, entered into force: 20 March 1966.

3 International Convention for the Conservation of Atlantic Tunas, 14 May 1966, 673 U.N.T.S. 63, and online: <http://www.iccat.es/Documents/BasicTexts.pdf> entered into force: 21 March 1969; amended by Paris and Madrid Protocols of 10 July 1984 and 5 June 1992, respectively. The 1984 Protocol entered into force on 14 December 1997. The 1992 Protocol is not yet in force.

4 Agreement on Sealing and the Conservation of Seal Stocks in the Northwest Atlantic and Exchange of Notes amending the Agreement of 15 July 1971 on Sealing and the Conservation of Seal Stocks in the Northwest Atlantic, entered into force: 22 December 1971.

5 The Torremolinos International Convention for the Safety of Fishing Vessels, 2 April 1977, BPP Misc. 17(1978), 2 April 1977, opened for signature 1 October 1977, not yet in force; Torremolinos Protocol relating to the Torremolinos International Convention for the Safety of Fishing Vessels of April 2, 1977, 2 April 1993, open for signature: 1 July 1993–30 June 1994, not yet in force.

6 Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries, 24 October 1978, 1135 U.N.T.S. 369, online: <http://www.nafo.ca/about/convention.htm> entered into force provisionally: 1 January 1979, entered into force definitively: 29 March 1979.

7 Agreement on Fisheries between the Government of Canada and the European Economic Community, 30 December 1981, C.T.S. 1981/30 and C.T.S. 1984/2, entered into force: 30 December 1981.

8 Convention for the Conservation of Salmon in the North Atlantic Ocean, 2 March 1982, 1338 U.N.T.S. 33, online: <http://www.nasco.int/pdf/nasco_convention.pdf> entered into force: 1 October 1983.

9 United Nations Convention on the Law of the Sea (LOSC), 10 December 1982, UN Doc. A/CONF. 62/122, reprinted in (1982) 21 I.L.M. 1261, available online: <http://www.un.org/depts/los/convention_agreements/convention_overview_convention.htm>, entered into force: 16 November 1994; entered into force for Canada: 7 December 2003.

10 Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, 24 November 1993, reprinted in 33 I.L.M. 968, and online: <http://www.fao.org/legal/treaties/012T-e.htm>, entered into force on 24 April 2003. Canada is a party to this Agreement.

11 Procès-Verbal applying the March 27, 1972 Agreement between Canada and France on their Mutual Fishing Relations, 2 December 1994.

12 The Rome Consensus on World Fisheries, 15 March 1995, online at Food and Agriculture Organization web site: <http://www.fao.org/fi/agreem/consensu/cone.asp> (date accessed: 6 August 2002).

13 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of December 10, 1982 relating to the Conservation and Management of Straddling Fish Stocks, and Highly Migratory Fish Stocks (known as UNFA or United Nations Fish Stocks Agreement), 4 August 1995, online: <http://www.un.org/depts/los/convention_agreements/convention_overview_fish_stocks.htm>, open for signature on 4 December 1995, in force as from 11 December 2001.

14 Food and Agriculture Organization of the United Nations, Code of Conduct for Responsible Fisheries, (Rome: FAO, 1995), available online: <http://www.fao.org/fi/agreem/codecond/ficonde.asp>.

15 Kyoto Declaration and Plan of Action on the Sustainable Contribution of Fisheries to Food Security, 9 December 1995, online at: <http://www.un.org/documents/ecosoc/cn17/1996/ecn171996-29.htm> (date accessed: 6 August 2002).

4.2.3 Marine Conservation and Protection

1 Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention), 2 February 1971, 996 U.N.T.S. 245, reprinted in 11 I.L.M. 969, online: <http://www.ramsar.org/key_conv_e.htm>, entered into force: 21 December 1975; Protocol to amend the Convention on Wetlands of International Importance especially as Waterfowl Habitat of February 2, 1971, with annex, 1437 U.N.T.S. 344, reprinted in 22 I.L.M. 698, online: <http://www.ramsar.org/key_paris_protocol.htm>, entered into force: 1 October 1986; with amendments to the Convention on 28 May 1987, entered into force: 1 May 1994.

2 Declaration of the United Nations Conference on the Human Environment (Stockholm Declaration), 16 June 1972, UN Doc. A/CONF. 48/14/Rev. 1, reprinted in (1972) 11 I.L.M. 1416, online: <http://www.unep.org/Documents/Default.asp?DocumentID=97&ArticleID=1503>.

3 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention) 29 December 1972, 1046 U.N.T.S. 120, entered into force: 30 August 1975; and 1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 and Regulations adopted by the Special Meeting, LC/SM 1/6, 14 November 1996.

4 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES Convention), 3 March 1973, 993 U.N.T.S. 243, reprinted in 12 I.L.M. 1085, entered into force 1 July 1975, with amendments.

5 Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention), 23 June 1979, (1990) B.T.S. 87, reprinted in 19 I.L.M. 15, entered into force: 1 November 1983.

6 World Charter for Nature, adopted by United Nations General Assembly Resolution 37/7, 28 October 1982.

7 United Nations Convention on the Law of the Sea (LOSC), 10 December 1982, UN Doc. A/CONF. 62/122, reprinted in (1982) 21 I.L.M. 1261, entered into force: 16 November 1994; entered into force for Canada: 7 December 2003.

8 Vienna Convention for the Protection of the Ozone Layer, 22 March 1985, C.T.S. 1988/23, reprinted in 26 I.L.M. 1516, entered into force: 22 September 1988; and Montreal Protocol on Substances that Deplete the Ozone Layer, 16 September 1987, C.T.S. 1989/42, reprinted in 26 I.L.M. 1541, entered into force: 1 January 1989.

9 Convention on Environmental Impact Assessment in a Transboundary Context, 25 February 1991, reprinted in 30 I.L.M. 800, online at: <http://www.unece.org/env/eia/> (date accessed: 6 August 2002), entered into force: 10 September 1997.

10 United Nations Framework Convention on Climate Change and Kyoto Protocol, 9 May 1992, C.T.S. 1994/7, reprinted in 31 I.L.M. 849, entered into force: 21 March 1994.

11 Declaration of the United Nations Conference on Environment and Development (Rio Declaration), 13 June 1992, UN Doc. A/CONF.151/5/Rev.1, reprinted in (1992) 31 I.L.M. 874, endorsed by UN General Assembly Resolution 47/190 (1992).

12 Convention on Biological Diversity, 5 June 1992, (1995) B.T.S. 51, reprinted in 31 I.L.M. 818, entered into force: 29 September 1993.

13 Jakarta Mandate on Marine and Coastal Biological Diversity, adopted at the Second Meeting of the Conference of the Parties to the Convention on Biological Diversity, UN Doc. UNEP/CBD/COP/2/19 and UN Doc. UNEP/CBD/COP/2/5, online: <http://www.biodiv.org/programmes/areas/marine/> (date accessed: 6 August 2002).

14 Chapter 17 of Agenda 21: Programme of Action for Sustainable Development (Agenda 21), "Protection of the oceans, all kinds of seas, including enclosed and semi-enclosed seas, and coastal areas and the protection, rational use and development of their living resources" June 1992, UN Doc. A/CONF. 151/26/REV. 1, Vols. I–III (1992), reprinted in S.P. Johnson, ed., *The Earth Summit: The United Nations Conference on Environment and Development* (London: Graham and Trotman/Martinus Nijhoff, 1993) 123.

15 North American Agreement on Environmental Cooperation between the Government of Canada, the Government of the United Mexican States and the Government of the United States of America, 12 and 14 September 1993, reprinted in 32 I.L.M. 1480 and online at: <http://www.cec.org/pubs_info_resources/law_treat_agree/naaec/index.cfm?varlan=english> (date accessed 6 August 2002), entered into force: 1 January 1994

16 IUCN (the World Conservation Union) Draft International Covenant on Environment and Development, 2000, available online at IUCN web site: <http://www.iucn.org/themes/law/pdfdocuments/EPLP31ENsecond.pdf> (date accessed: 6 August 2002.)

17 Washington Declaration on Protection of the Marine Environment from Land-based Activities, Report of the Conference, 3 November 1995, UNEP (OCA)/LBA/IG.2/6, Annex II, reprinted in (1996) 26 Environmental Policy and Law 37; and Global Programme of Action for the Protection of the Marine Environment from Land-based Activities, 5 December 1995, UNEP (OCA)/LBA/IG.2/7, reprinted in (1996) 26 Environmental Policy and Law 38.

18 The 1916 Convention Between the United Kingdom and the United States of America for the Protection of Migratory Birds in Canada and the United States and the amending 1995 Protocol between Canada and the United States are reprinted in the federal *Migratory Birds Convention Act, 1994*, available at: <http://laws.justice.gc.ca/en/M-7.01/text.html>.

19 Johannesburg Plan of Implementation from the World Summit on Sustainable Development, 2002 available at: http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/POIChapter1.htm

4.2.4 Marine Science and Technology

1 Convention of the World Meteorological Organisation, 11 October 1947, 77 U.N.T.S. 143, entered into force: 23 March 1950; amendments to the Convention adopted by resolutions of the World Meteorological Organization: 1 April 1959 (Art. 10(1) (2), 15 April 1959 (Art. 13), 11 and 27 April 1963 (several articles), 11 and 26 April 1967 (Arts. 4(b), 12(c) and French text of Art. 13(a)), 28 April and 23 May 1975 (several articles).

2 Convention for the International Council for the Exploration of the Sea, (ICES), 12 September 1964, 652 U.N.T.S. 237, reprinted in 7 I.L.M. 302, entered into force: 22 July 1968; Protocol to the Convention for the International Council for the Exploration of the

Sea of September 12, 1964, 13 August 1970, 1003 U.N.T.S. 402, entered into force: 12 November 1975.

3 Convention on the International Hydrographic Organisation, 3 May 1967, 751 U.N.T.S. 41, entered into force: 22 September 1970.

4.2.5 Marine Transportation

1 Convention on the Intergovernmental Maritime Consultative Organization, 6 March 1948, 289 U.N.T.S. 48, entered into force: 17 March 1958, amended in: 15 September 1964 (articles 17 and 18), 28 September 1965 (article 28), 17 October 1974 (articles 10, 16–18, 20, 28, 31, and 32), 14 November 1975 (change of name to International Maritime Organization (IMO) and substantive provisions of the convention), 9 November 1977 (rectification of previous resolution), 17 November 1977 (institutionalization of the Committee on Technical Cooperation), 15 November 1979 (articles 17, 18, 20, and 51), 7 November 1991 (institutionalization of the Facilitation Committee), and 4 November 1993 (articles 16, 17 and 19) (entry into force of amendments on various dates).

2 Convention on Facilitation of International Maritime Traffic, 9 April 1965, 591 U.N.T.S., reprinted in 4 I.L.M. 502, entered into force: 5 March 1967; amendment to annex: 15 December 1969, entered into force: 12 August 1971; amendment to text of Article VII: 19 November 1973, entered into force: 2 June 1984.

3 International Convention on Load Lines, 1966, 5 April 1966, 640 U.N.T.S. 133, entered into force: 21 July 1968,; and Protocol of 1988 relating to the International Convention on Load Lines of April 5, 1966, 11 November 1988, not yet in force.

4 International Convention on Tonnage Measurement of Ships, 1969, (Tonnage Convention), 23 June 1969, 1291 U.N.T.S., entered into force: 18 July 1982.

5 International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 29 November 1969, 970 U.N.T.S. 211, entered into force: 6 May 1975; and Protocol Relating to Intervention on the High Seas in Cases of Marine Pollution by Substances other than Oil, 2 November 1973, 1313 U.N.T.S. 3, reprinted in 13 I.L.M. 605, entered into force: 30 March 1983.

6 International Convention on Civil Liability for Oil Pollution Damage, 29 November 1969, 973 U.N.T.S. 3, entered into force: 19 June 1975; Protocol, 19 November 1976, entered into force: 8 April 1981; Protocol, 25 May 1984; Protocol, 27 November 1992, entered into force: 30 May 1996.

7 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 18 December 1971, 1110 U.N.T.S. 57, reprinted in 11 I.L.M. 284, entered into force: 16 October 1978; Protocol to amend the International Convention on the Establishment of an International Fund for

Compensation for Oil Pollution Damage of December 18, 1971, 27 November 1992, B.T.S. 87(1996), entered into force: 30 May 1996.

8 Convention on the International Regulations for Preventing Collisions at Sea, 20 October 1972, 1050 U.N.T.S. 16, entered into force: 15 July 1977.

9 International Convention for Safe Containers, 2 December 1972, entered into force: 6 December 1977, with amendments to the Convention and Annexes on: 2 April 1981, 13 June 1983, 17 May 1991, 4 November 1993.

10 International Convention for the Prevention of Pollution from Ships, 1973, 2 November 1973, 1340 U.N.T.S. 184, not intended to enter into force and be applied on its own but to be incorporated in, and read and interpreted with the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships of November 2, 1973 (MARPOL 73/78), 17 February 1978, 1340 U.N.T.S. 61, reprinted in 17 I.L.M. 546, entered into force: 2 October 1983:

- Annex I (Oil) entered into force: 2 October 1983;
- Annex II (Noxious liquid substances) entered into force: 2 October 1983;
- Annex III (Harmful substances in packaged forms) entered into force: 1 July 1992;
- Annex IV (Sewage) not yet in force
- Annex V (Garbage) entered into force: 31 December 1988;
- Annex VI (of Protocol) (Air pollution) not yet in force.

11 International Convention for the Safety of Life at Sea, 1974, (SOLAS), 1 November 1974, 1184 U.N.T.S. 2, reprinted in 14 I.L.M. 963, entered into force: 25 May 1980.

12 International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, 7 July 1978, 1361 U.N.T.S. 2, entered into force: 28 February 1984; and the 1995 amendments to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978, in Conference and Seafarer's Training, Certification and Watchkeeping Code (STCW Code) including resolution 2 of the 1995 STCW Conference (London: IMO, 1996), entered into force on 1 February 1997. (Entry into force of amendments on various dates).

13 Convention on Maritime Search and Rescue, 1979, (SAR), 27 April 1979, 1405 U.N.T.S. 97, entered into force: 22 June 1985.

14 Paris Memorandum of Understanding on Port State Control, 26 January 1982, online at: <http://www.parismou.org> (date accessed: 6 August 2002), entered into force: 1 July 1982.

15 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention), 22 March 1989, UN Doc. UNEP/WG.190/4, reprinted in 28 I.L.M. 649, entered into force: 2 May 1992; and Amendment to the Basel

Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal of March 22, 1989, 22 September 1995, not yet in force.

16 International Convention on Salvage, 1989, 28 April 1989, B.T.S. 93 (1996), entered into force: 14 July 1996.

17 International Convention on Oil Pollution Preparedness, Response and Cooperation, 1990, 30 November 1990, B.P.P. Misc. 38 (1994), entered into force: 13 May 1995.

18 International Convention on Liability and Compensation for Damage In Connection with the Carriage of Hazardous and Noxious Substances by Sea (HNS) 1996, not yet in force; Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances (OPPRC-HNS Protocol), 15 March 2000, not yet in force.

20 Guidelines for the Control and Management of Ships' Ballast Water to Minimize the Transfer of Harmful Aquatic Organisms and Pathogens, 27 November 1997, online at: <http://globallast.imo.org/868%20english.pdf/> (date accessed: 6 August 2002).

21 Agreement between the Government of Canada and the Government of the United States of America concerning the Transboundary Movement of Hazardous Waste, entered into force 8 November 1986.

22 Decision of the Council of the Organisation for Economic Co-operation and Development concerning the control of transfrontier movements of wastes destined for recovery operations, adopted 30 March 1992.

4.2.6 Maritime Defence

1 Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation, 10 March 1988, CTS 1993/10, reprinted in 27 I.L.M. 668, entered into force: 1 March 1992; and Protocol for the Suppression of Unlawful Acts Against the Safety of Fixed Platforms Located on the Continental Shelf, 10 March 1988, CTS 1993/9, reprinted in 27 I.L.M. 685, entered into force: 1 March 1992.

2 United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, 20 December 1988, CTS 1990/42, reprinted in 28 I.L.M. 493, entered into force: 11 November 1990.

3 Agreement on Illicit Traffic by Sea, Implementing Article 17 of the United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of December 20, 1988, 31 January 1995, E.T.S. 156, not yet in force.

4 International Ship and Port Facility Security Code (ISPS Code), adopted by IMO at the Conference of Contracting Governments to the International Convention for the Safety of Life at Sea, 1974: 9–13 December 2002.

4.2.7 Oil and Gas

1 Guidelines and standards for the removal of offshore installations and structures on the Continental Shelf and in the Exclusive Economic Zone, IMO Resolution A.672(16) Adopted on 19 October 1989, available online: <http://www.londonconvention.org/Removal.htm>

2 1982 UNEP Guidelines Concerning the Environment Related to Offshore Mining and Drilling Within the Limits of National Jurisdiction.

3 IMO Code for the Construction and Equipment of Mobile Offshore Drilling Units, 1989, adopted by IMO Resolution A.649(16).

4.2.8 Recreation, Culture and Tourism

1 Convention for the Protection of the World Cultural and Natural Heritage, 23 November 1972, 1037 U.N.T.S. 151, entered into force: 17 December 1975.

2 Buenos Aires Draft Convention on the Protection of the Underwater Cultural Heritage, August 1994, not yet in force.

3 UNESCO Draft Convention for the Protection of Underwater Cultural Heritage, 1998, not yet in force.

4.3 Summary of International Legal Instruments by Sector

The following is a summary of the various instruments governing the different use sectors examined in the Eastern Scotian Shelf Integrated Management Initiative.

4.3.1 Communications and Submarine Cables

4.3.1.1 The Convention for the Protection of Submarine Cables, and Protocols on Interpretation

Citation: Convention for the Protection of Submarine Cables, 14 March 1884, 163 Parry 391, entered into force: 1 May 1888; Protocol, with draft of declaration, interpreting articles 2 and 4 of the Convention for the Protection of Submarine Cables of March 14, 1884, 21 May 1886, TS 380-1; Declaration explanatory of the Convention of March 14, 1884, for the Protection of Submarine Cables, with Closing Protocol of July 7, 1887, 1 December 1886, 168 Parry 337, entered into force: 1 May 1888; and Protocol respecting the date on which the Convention of March 14, 1884, for the Protection of Submarine Cables, should be put into force, 7 July 1887, 169 Parry 375, entered into force: 7 July 1887.

The first piece of international law to address submarine cables was the Convention for the Protection of Submarine Cables and its interpretation protocols, to which Canada is a party. This Convention is still in force today and has provisions to ensure the safety of cable-ships and prevent interference with and from other ocean uses. Article 2 of the Convention states that:

> the breaking or injury of a submarine cable, done wilfully or through culpable negligence, and resulting in the total or partial interruption or embarrassment of telegraphic communication, shall be a punishable offence, but the punishment inflicted shall be no bar to a civil action for damages.

In order to seek compensation for cable repair costs through civil litigation under private law of torts, the cable owner as plaintiff has the onus to prove negligence on the part of the master of a fishing or cargo vessel snagging a cable. The exercise of due diligence is a defence by masters to litigation for snagging (and damaging) an operational cable in Canada. As useful as this cable protection provision may be, it must be noted that the Convention is largely outdated, failing to provide adequate protection measures for the cable industry, and an effective regulatory framework for cables in the context of multiple ocean use.

Implementation in Canadian law

This Convention is a binding agreement to which Canada is still a party. Currently, Canada has no provisions under the *Canada Shipping Act, Fisheries Act, Criminal Code* or *Telecommunications Act* making damage to submarine cables an offence, more specifically outside Canada's territorial jurisdiction. This may require an amendment to the *Oceans Act*, or the *Canada Shipping Act* with respect to Canadian shipping on the high seas.

4.3.1.2 Convention on the International Maritime Satellite Organization (INMARSAT) and Operating Agreement

Citation: Convention on the International Maritime Satellite Organization and Operating Agreement on the International Maritime Satellite Organization (INMARSAT), 3 September 1976, 1143 U.N.T.S. 105 and 213, entered into force 16 July 1979; Protocol on the privileges and immunities of the International Maritime Satellite Organization, 1 December 1981, 1328 U.N.T.S. 149, entered into force 30 July 1983; Amendments to the Convention on the International Maritime Satellite Organization (INMARSAT) of September 3, 1976 and to the Operating Agreement, 16 October 1985, C.T.S. 1989/48, reprinted in 27 I.L.M. 691, entered into force: 13 October 1989; Amendments to Convention, 19 January 1989, Amendments to Operating Agreement, 9 December 1994 (entry into force of amendments on various dates).

The Convention on the International Maritime Satellite Organization and Operating Agreement establish the International Maritime Satellite Organisation (INMARSAT), mandated to make provisions for the space segment necessary for improving maritime communications. It assists in improving all areas in need of maritime communications, including, *inter alia*:

- distress and safety of life at sea;
- communications, efficiency and management of ships;
- maritime public correspondence services; and
- radio determination capabilities.

The corporate structure of INMARSAT changed to a private corporation on 1 April 1999. It is uncertain what the corporate change will mean in terms of cost and service. To date, INMARSAT is the only approved satellite communications system for use with the Global Maritime Distress and Safety System (GMDSS). Historically, its high costs have prevented smaller coastal vessel operators from using it, relying instead on VHF equipment.

Implementation in Canadian law

Transport Canada is involved in ship safety related legislation. See the TC web site.

4.3.1.3 United Nations Convention on the Law of the Sea (LOSC)

Citation: United Nations Convention on the Law of the Sea (LOSC), 10 December 1982, UN Doc. A/CONF. 62/122, reprinted in (1982) 21 I.L.M. 1261, entered into force: 16 November 1994; entered into force for Canada: 7 December 2003.

The United Nations Convention on the Law of the Sea (LOSC) contains some relevant provisions on submarine cables. Article 79 confirms the right of states to:

- lay cables on the continental shelf, but subjects this freedom to the right of a coastal state to take reasonable measures for the exploration of the continental shelf and the exploitation of its natural resources;

- establish conditions for cables entering its territory or territorial sea; and
- acknowledges state jurisdiction over cables constructed or used in connection with the exploration of its continental shelf or exploitation of its resources or the operations of artificial islands, installations and structures under its jurisdiction.

Although the delineation of the route for laying submarine cables on the juridical continental shelf is not subject to the consent of the coastal state,[214] failure to seek agreement may lead to problems later.[215] Article 79 further provides that when laying submarine cables, coastal states shall have due regard for cables already in position, and possibilities for repairing cables shall not be prejudiced.

Article 87 defines the right to lay cables on the seabed as one of the "freedoms of the high seas." Also, Article 58 makes reference to the high seas freedom to lay cables in the EEZ, but this freedom is granted only in so far as it is compatible with other provisions of the Convention.

Article 112 of the Convention gives states the right to lay submarine cables "on the bed of the high seas beyond the continental shelf."

Article 114 requires that the state shall adopt laws and regulations necessary to provide that, if persons subject to its jurisdiction who are owners of a submarine cable under the high seas, in laying or repairing cables, cause a break in or injury to another cable, shall bear the cost of repairs.

LOSC provides direction for coastal states in dealing with conflicts between submarine cables and other ocean uses. For example, Article 113 requires that all states shall adopt laws and regulations that make damage to submarine cables, done wilfully or through culpable negligence – including conduct likely to result in cable damage – a punishable offence. Similarly, Article 115 requires that all states shall adopt laws and regulations to ensure that vessel owners who prove they sacrificed an anchor or fishing gear in order to avoid damaging a submarine cable shall be indemnified by the cable owner, provided that the vessel took reasonable precautionary measures beforehand.

Disputes concerning cables in areas of national jurisdiction are subject to mandatory settlement under Paragraph 297 (1)(a).

The International Seabed Authority is responsible for organizing, monitoring and controlling specific issues covered in Part XI of the Convention, which focuses on activities such as mining in the Area, i.e., the seabed area beyond national jurisdiction. In view of the potential conflicts in the Area between cables, ocean mineral extraction, and future methane hydrate exploitation, suggestions have been made that the Authority be mandated by the UN General Assembly to assume a regulatory function with regard to the routing of cables and their maintenance in the Area.

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[214] In Article 79(3), pipelines on the continental shelf are subject to the consent of the coastal state, but cables, either intentionally or otherwise, are omitted from the clause.

[215] E. D. Brown, "The Significance of a Possible EC EEZ for the Law Relating to Artificial Islands, Installations, and Structures, and to Cables and Pipelines in the Exclusive Economic Zone" (1992) 23(2-3) *Ocean Development and International Law* 115–144.

The development of a Submarine Cable Industry Code by the Authority with the collaboration and advice of the International Cable Protection Committee would assist in the harmonization between international cable industry practices and national approaches to cable regulation as guided by the 1982 Convention.

Implementation in Canadian law

Canada ratified the LOSC in November 2003. The degree of protection afforded to submarine cables could improve through the adoption of domestic legislation implementing the cable protection provisions of the LOSC. Regulatory deficiencies exist in cases of conflict between submarine cables and other ocean uses in EEZ areas. In particular, Canada needs to address regulatory deficiencies such as those corrected in Articles 113–115 of the LOSC.

Submarine cables are regulated to some extent in Canadian waters. For example, a proponent for a domestic submarine cable in navigable waters must apply for an approval from the Canadian Coast Guard under the *Navigable Waters Protection Act* (*NWPA*)[216] if the work interferes with navigation. An *NWPA* approval (as opposed to an exemption[217]) triggers an environmental assessment under the *Canadian Environmental Assessment Act* (*CEAA*), which allows for consideration of socio-economic conditions arising from a perceived change in the environment in relation to specific ocean activities. Depending on how the cable is laid (buried or on bottom), an authorization under the *Fisheries Act*[218] for alteration of fish habitat may be required, and in cases of cable burial, the ocean dumping provisions of the *Canadian Environmental Protection Act*[219] can be triggered. A *CEAA* review will be triggered in both cases. Domestic cables are not licensed by any government department and no additional regulations or fees apply to the cable after it has been laid. The Province of Nova Scotia has recently issued leases/easements for cables on the continental shelf that landfall in Nova Scotia, including a domestic cable to Sable Island. The application of the *NWPA* is not uniform throughout the EEZ, with a focus of application in the territorial sea.[220]

A proponent for an international cable (i.e., landing points outside of Canada) through Canadian waters must apply for a permit from Industry Canada under the International Submarine Cable Regulations of the *Telecommunications Act*[221] and for an exemption or approval under the

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[216] *Navigable Waters Protection Act*, R.S., c. N-19, s. 1.

[217] An exemption confirms that no navigational hazard exists or would be created, and as such no further consideration is required under the NWPA.

[218] *Fisheries Act*, R.S., c. F-14, s. 1.

[219] Part IV and Ocean Dumping Regulations of the *Canadian Environmental Protection Act*, R.S., 1985, c. 16 (4th Supp.).

[220] Jon Prentiss, NWP, Coast Guard, pers. comm. 20 July 2000.

[221] *Telecommunications Act*, Chapter 38, 1993. This applies to "terminating cable licences" and "through cable licences" which have fees of only CA$100 per annum. The latter refers to cables that extend across Canadian seabed but do not landfall in Canada. Fees for cable licenses vary considerably in different national jurisdictions. License fees in the Republic of Ireland are either IR£2000 per annum or a one-time fee of IR£24,000 if deemed to be in the national interest.

NWPA. The license fee for the Industry Canada permit is $100 per year. The Industry Canada permitting process triggers an environmental assessment under *CEAA*.[222] The *Telecommunications Act* only applies to "through cables" if laid within the 12-NM Territorial Sea.[223]

Canada's *Oceans Act* mandates the Minister of Fisheries and Oceans to develop and implement plans for the integrated management of all activities and measures affecting coastal and marine ecosystems. Ocean-use planning concepts and tools such as area-based management[224] and zonation could be used to address multiple ocean use, such as conflicts between the fishing and cabling industries. The recommendations of the International Cable Protection Committee (ICPC) Plenaries should be considered for their potential application to Canadian domestic law and regulations. ICPC recommendations reflect approaches to cable regulation in a multiple ocean-use context.

4.3.1.4 Constitution of the International Telecommunications Union and Convention

Citation: Constitution of the International Telecommunications Union and Convention of the International Telecommunications Union, 22 December 1992, (1996) B.T.S. 24, entered into force: 1 July 1992.

The Constitution of the International Telecommunications Union and the Convention of the Union was concluded to facilitate peaceful relations through telecommunication services, facilitated by the International Telecommunications Union (ITU). The only marine-related part of the Convention is with regard to telecommunication services at sea. The International Convention on the Safety of Life at Sea (SOLAS), described below in section 4.3.5.11, refers to this Convention with regard to radio use at sea in Chapter III – "Special Provisions for Radio of the ITC." In particular, Article 143 provides that absolute priority shall be given to all telecommunication concerning safety of life at sea, as well as epidemiological telecommunications of exceptional emergency of the World Health Organisation.

Implementation in Canadian law

Transport Canada is involved in ship safety related legislation. See the TC web site. Industry Canada is responsible for the *Radiocommunication Act*, R.S. 1985, c. R-2 and the *Telecommunications Act*, S.C. 1993, c. 38.

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[222] Industry Canada as Responsible Authority under CEAA engages federal departments through Regulations Respecting the Coordination by Federal Authorities of Environmental Assessment Procedures.

[223] John Janes, Industry Canada, pers. comm.

[224] This is a generic term referring to spatial and temporal zoning plans for large-scale, multiple-use marine environments.

4.3.2 Fisheries

4.3.2.1 International Convention for the Regulation of Whaling (ICRW)

Citation: International Convention for the Regulation of Whaling, 2 December 1946, 161 U.N.T.S. 72, entered into force: 10 November 1948; and Protocol to the International Convention for the Regulation of Whaling of December 2, 1946, 19 November 1956, 338 U.N.T.S. 366, entered into force 4 May 1959.

The International Convention for the Regulation of Whaling (ICRW) established the International Whaling Commission (IWC) (Article III). The IWC was given powers to designate:

- protected and unprotected species;
- open and closed seasons;
- open and closed waters, including the designation of sanctuary areas;
- size limits for each species;
- time, methods, and intensity of whaling;
- types and specifications of gear which may be used;
- methods of measurement;
- catch returns and other statistical and biological records; and
- methods of inspection.

Implementation in Canadian law

In 1982, Canada ceased to be a member of the IWC and abandoned commercial whaling activities. The IWC has begun to examine the impacts of environmental change on cetacean populations, including the accumulation of pollutants, the need for development of guidelines for whale watching, and issues that have extended the original IWC focus on commercial whaling activities. Canada's interests may be served by observing current developments within the IWC.

4.3.2.2 The Convention on Fishing and Conservation of Living Resources of the High Seas

Citation: Convention on Fishing and Conservation of Living Resources of the High Seas, 29 April 1958, 559 U.N.T.S. 285, entered into force: 20 March 1966.

The Convention on Fishing and Conservation of Living Resources of the High Seas declares that states have the right to engage in fishing on the high seas subject to treaty obligations, the interests and rights of coastal states as provided for in the Convention, and the provisions concerning the conservation of living resources of the high seas. Despite the adoption of the 1982 Law of the Sea Convention, the 1958 Convention is still a legally valid document.

Implementation in Canadian law

Although Canada signed this Convention in 1958, it has not ratified it thus is not legally bound to its terms. The Convention is characterized as a moral code which fishing nations prefer not to violate. Many of the Convention's principles have been implemented through other various international UN conventions to which Canada is a signatory.

4.3.2.3 International Convention for the Conservation of Atlantic Tunas (ICCAT)

Citation: International Convention for the Conservation of Atlantic Tunas (ICCAT), 14 May 1966, 673 U.N.T.S. 63, entered into force: 21 March 1969; amended by protocols of 10 July 1984 and 5 June 1992. The 1984 Protocol entered into force on 14 December 1997. The 1992 Protocol is not yet in force.

The International Convention for the Conservation of Atlantic Tunas (ICCAT) have been signed by Parties having a mutual interest in the populations of tuna and tuna-like fishes (e.g., billfishes) found in the Atlantic Ocean. The Parties are to cooperate in maintaining the populations of these fishes at levels that will permit the maximum sustainable catch for food and other purposes. The Convention establishes the International Commission for the Conservation of Atlantic Tunas to carry out the objectives of the Convention.

Implementation in Canadian law

Signed by Canada on 14 May 1966, the Convention entered into force on 21 March 1969. The lead department implementing the Convention is Fisheries and Oceans Canada and other interested departments include the Canadian International Development Agency.

Canada manages highly migratory stocks under ICCAT jurisdiction through four Integrated Fishery Management Plans (IFMPs) for: Pelagic Sharks; Swordfish; Bluefin tuna; and Bigeye, Yellowfin and Albacore Tunas.[225]

4.3.2.4 The Agreement on Sealing and the Conservation of Seal Stocks in the Northwest Atlantic and Exchange of Notes amending the Agreement of 15 July 1971 on Sealing and the Conservation of Seal Stocks in the Northwest Atlantic

Citation: Agreement on Sealing and the Conservation of Seal Stocks in the Northwest Atlantic and Exchange of Notes amending the Agreement of 15 July 1971 on Sealing and the Conservation of Seal Stocks in the Northwest Atlantic, entered into force: 22 December 1971.

The Agreement on Sealing and the Conservation of Seal Stocks in the Northwest Atlantic and Exchange of Notes amending the Agreement of 15 July 1971 on Sealing and the Conservation of Seal Stocks in the Northwest Atlantic calls for the establishment of international cooperation for the purpose of achieving optimum productivity of seal stocks in order to attain population levels capable of ensuring the maximum sustainable catch. This agreement has had limited significance as many stocks are within 200 NM and thus under national jurisdiction.

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[225] 1998 Canadian Atlantic Integrated Fisheries Management Plan, BigEye and Yellow Fin; IFMP Canadian Atlantic Swordfish Fishery 1997-1999, IFMP Canadian Atlantic Pelagic Shark Fishery 1997-1999, Integrated Fisheries Management Plan Atlantic Bluefin Tuna 1999-2000.

Implementation in Canadian law

Fisheries and Oceans Canada has an Integrated Fishery Management Plan for seals in the Northwest Atlantic, and includes harvest conservation measures.

4.3.2.5 The Torremolinos International Convention for the Safety of Fishing Vessels, 1977

Citation: The Torremolinos International Convention for the Safety of Fishing Vessels, 2 April 1977, BPP Misc. 17(1978), 2 April 1977, opened for signature 1 October 1977, not yet in force; Torremolinos Protocol relating to the Torremolinos International Convention for the Safety of Fishing Vessels of April 2, 1977, 2 April 1993, open for signature: 1 July 1993–30 June 1994.

The Torremolinos International Convention for the Safety of Fishing Vessels, 1977 is the first-ever international convention on the safety of fishing vessels. This is a matter of great concern to the International Maritime Organization (IMO) since it came into existence. The great differences in design and operation between fishing vessels and other types of ships had always proved a major obstacle to the inclusion of fishing vessels in other IMO instruments, such as the Conventions on Safety of Life at Sea and Load Lines.

The Torremolinos Convention contains safety requirements for the construction and equipment of new, decked, seagoing fishing vessels of 24 metres (c. 79 feet) in length and over, including those vessels also processing their catch. Existing vessels will only have to meet the radio requirements. It will enter into force one year after 15 states with 50 per cent of the world's fishing fleet of vessels of 24 metres in length have ratified the Convention.

In the 1980s, it became clear that the parent Convention was unlikely to enter into force, largely because of technical reasons. As a result it was decided to prepare a replacement in the form of a Protocol. The Protocol updates the parent Convention and takes account of technological evolution in recent years and the need to take a pragmatic approach towards the early ratification of an instrument which is needed to regulate the safety of fishing vessels and crews. The Protocol, which amends and absorbs the parent Convention, also applies to fishing vessels of 24 metres in length and over including those vessels also processing their catch. The purpose of the Protocol is to eliminate the provisions incorporated in the parent Convention which have caused difficulties for states and thereby enable it to be brought into force as soon as possible. The 1993 Torremolinos Protocol was adopted on 2 April 1993 and will enter into force one year after 15 states with at least an aggregate fleet of 14,000 vessels, equivalent to approximately 50 percent of today's world fishing fleet of vessels of 24 metres in length and over, have ratified the Protocol.

Implementation in Canadian law

Transport Canada is involved in ship safety related legislation. Canada is not party to the Convention. See the Transport Canada web site.

4.3.2.6 Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries

Citation: Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries, 24 October 1978, 1135 U.N.T.S. 369, entered into force provisionally: 1 January 1979, entered into force definitively: 29 March 1979.

The Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries is a legally binding treaty concluded to promote the conservation and optimum utilization of the fishery resources of the North Atlantic area and to encourage international cooperation and consultation with respect to these resources. To this end, the Convention created the Northwest Atlantic Fisheries Organisation (NAFO), the regional fisheries organization responsible for this Convention. NAFO provides for the conservation and management of 12 fish stocks, which includes both straddling and discrete stocks.

On 1 January 2000, the members of NAFO signed the North Atlantic Fisheries Organization Conservation and Enforcement Measures. The measures facilitate the effective implementation of the provisions of the Convention by formulating specific management, vessel and gear or grate requirements, inspection and surveillance requirements, schedules and an observer and satellite tracking project, in order to conserve and utilize optimally the fishery resources of the Northwest Atlantic area and to encourage further international cooperation and consultation with respect to the rational exploitation of these resources.

Implementation in Canadian law

The Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries is implemented in Canada through the *Coastal Fisheries Protection Act* and its regulations. The Enforcement Measures entered into force for Canada on 1 January 2000. The lead departments implementing the Convention are Fisheries and Oceans Canada and Foreign Affairs Canada.

The short-finned squid is a straddling stock species in the eastern Scotian Shelf study area under NAFO jurisdiction. Generally, most species in the study area are under Canadian jurisdiction, with the exception of the large migratory pelagics under ICCAT and short-finned squid under NAFO.

4.3.2.7 Agreement on Fisheries between the Government of Canada and the European Economic Community, 30 December 1981

Citation: Agreement on Fisheries between the Government of Canada and the European Economic Community, 30 December 1981, C.T.S. 1981/30 and CTS 1984/2, entered into force: 30 December 1981.

The Agreement on Fisheries between the Government of Canada and the European Economic Community co-ordinates efforts in the conservation and rational management of the living resources of the waters adjacent to the coasts of Canada and the member countries of the European Economic Community (EEC) by establishing the terms and conditions pertaining to fisheries of mutual concern. Details on fisheries relations such as co-operation and consultation with respect to resources in the Northwest Atlantic area are set out in the Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries and NAFO Conservation Enforcement Measures (see above).

Implementation in Canadian law

The Agreement was signed by Canada on 30 December 1981 and came into force for Canada on the same day. The lead department is Fisheries and Oceans Canada and other interested departments include the Department of Foreign Affairs.

4.3.2.8 Convention for the Conservation of Salmon in the North Atlantic Ocean

Citation: Convention for the Conservation of Salmon in the North Atlantic Ocean, 2 March 1982, 1338 U.N.T.S. 33, entered into force: 1 October 1983.

The purpose of the Convention for the Conservation of Salmon in the North Atlantic Ocean is to promote the conservation, restoration, enhancement and rational management of salmon stocks in the North Atlantic Ocean through international cooperation and in that respect, to promote the acquisition, analysis and dissemination of scientific information.

The Convention also establishes the North Atlantic Salmon Conservation Organization (NASCO), the regional fisheries organization located in Edinburgh, responsible for this Convention. In 1998, NASCO produced an International Atlantic Salmon Accord which aims to reverse the decline of wild Atlantic salmon populations and which was endorsed by 13 non-governmental organizations from Canada and Europe.

Implementation in Canadian law

The Convention was signed by Canada on 18 March 1982 and ratified on 30 September 1983. It came in force in Canada on 1 October 1983. The lead department is Fisheries and Oceans Canada; other departments include the Department of Foreign Affairs.

Although France is not a member of NASCO, the harvest of salmon by St Pierre and Miquelon in the French zone (which overlaps partly with the ESSIM study area) has been discussed at NASCO meetings. The 1995 Canada-France fishing agreement included a specific reference to the responsibility of both France and Canada to comply with NASCO salmon conservation measures.

4.3.2.9 United Nations Convention on the Law of the Sea (LOSC)

Citation: United Nations Convention on the Law of the Sea (LOSC), 10 December 1982, UN Doc. A/CONF. 62/122, reprinted in (1982) 21 I.L.M. 1261, entered into force: 16 November 1994; entered into force for Canada: 7 December 2003.

The majority of the fisheries provisions of the LOSC are found in the articles dealing with the Exclusive Economic Zone. Pursuant to article 56(1), the coastal state enjoys "sovereign rights for the purpose of exploring and exploiting, conserving and managing" the fish stocks found in the EEZ. These rights are subject to a number of obligations, including:

- the establishment of the total allowable catch for each fish stock (article 61(1));
- the taking of conservation and management measures to ensure fish stocks are not over-exploited (article 61(3)); and
- the promotion of the optimum utilization objective (article 62(1)).

Implementation in Canadian law

Canada ratified the LOSC in 2003 but still has to amend domestic legislation in conformity with the Convention.

4.3.2.10 The Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas 1993 (Compliance Agreement)

Citation: Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, 24 November 1993, reprinted in 33 I.L.M. 968, available online: <http://www.fao.org/legal/treaties/012T-e.htm>, entered into force on 24 April 2003.

The Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas 1993 (Compliance Agreement) is to regulate the re-flagging of fishing vessels which, according to the United Nations Food and Agriculture Organization, has become a means of avoiding compliance with international conservation and management measures for living marine resources. The Compliance Agreement required 25 acceptances before it entered into force (Article XI(1)).

The Compliance Agreement requires that Parties take measures to ensure that fishing vessels entitled to fly their flag do not engage in any activity that undermines the effectiveness of international conservation and management measures. However, a Party may exempt a fishing vessel of less than 24 metres in length from the application of the Agreement. Where a Party has granted such an exemption, the state is nevertheless required to take effective action in respect of any such fishing vessel that undermines the effectiveness of international conservation and management measures.

Implementation in Canadian law

Canada deposited its instrument of acceptance on 20 May 1994 and is to ensure compliance through *Coastal Fisheries Protection Act*.

4.3.2.11 Procès-Verbal applying the March 27, 1972 Agreement between Canada and France on their Mutual Fishing Relations

Citation: Procès-Verbal applying the March 27, 1972 Agreement between Canada and France on their Mutual Fishing Relations, 2 December 1994.

The Procès-Verbal recognizes the advantages of developing cooperation between Canada and France to exploit fisheries products and the necessity of establishing shares for the fishing vessels of Canada and France in order to meet the obligations and responsibilities of the two countries to manage and conserve the living marine resources found within their respective maritime areas, while at the same time giving effect to their reciprocal rights to fish in each other's maritime areas.

The Procès-Verbal refers to the 27 March 1972 Agreement between the two countries on their mutual fishing relations and the 10 June 1992 decision of the Court of Arbitration for the Delimitation of Maritime Areas between the two countries. It was signed at the same time as the 2 December 1994 Agreement between Canada and France on the Development of Regional Co-operation between the Atlantic Provinces of Canada and the French Territorial Collectivity of Saint-Pierre and Miquelon.

Implementation in Canadian law

The Procès-Verbal was signed by Canada on 12 February 1994 and came into force for Canada on the same day. The lead department is Fisheries and Oceans Canada and other interested departments include the Department of Foreign Affairs.

4.3.12 The Rome Consensus on World Fisheries

Citation: The Rome Consensus on World Fisheries, 15 March 1995, online at Food and Agriculture Organization web site: <http://www.fao.org/fi/agreem/consensu/cone.asp> (date accessed: 6 August 2002).

The Rome Consensus on World Fisheries was adopted at a Ministerial Meeting on fisheries in Rome at the invitation of the Director-General of the FAO to review the state of the world fisheries and the FAO follow-up to the United Nations Conference on Environment and Development (UNCED). The Rome Consensus recognizes the socioeconomic, environmental and nutritional importance of fisheries and the growing demand for fish products. It concludes that action is required to: eliminate overfishing, rebuild and enhance wasteful fisheries practices, develop sustainable aquaculture, rehabilitate fish habitats, and develop fisheries for new and alternate species based on principles of scientific sustainability and responsible management. The document highlights current issues in marine fisheries management and conservation.

Implementation in Canadian law

Canada has signed this non-binding agreement.

4.3.2.13 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFA or United Nations Fish Stocks Agreement).

Citation: Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of December 10, 1982 relating to the Conservation and Management of Straddling Fish Stocks, and Highly Migratory Fish Stocks, 4 August 1995, open for signature on 4 December 1995, in force as from 11 December 2001.

The Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (Straddling/Highly Migratory Stocks Agreement) was concluded after Chapter 17 of Agenda 21 called on states to convene an international conference to address the problems regarding high seas management of straddling fish stocks as well as highly migratory fish stocks. The stated objective of the Agreement is "to ensure the long-term conservation and sustainable use of straddling fish stocks and highly migratory fish stocks through effective implementation of the relevant provisions of the Convention" (Article 2).

The Agreement prescribed a conservation and management regime for straddling/highly migratory fish stocks on the high seas. However, Article 3 of the Agreement extends the application of the conservation measures contained in Articles 6 and 7 to stocks within areas under national jurisdiction. Furthermore, Article 3(1) requires coastal states to apply the general principles enumerated in Article 5 in areas under national jurisdiction. Article 5 provides that states must enact measures to ensure the long-term sustainability of highly migratory fish stocks and to promote the objective of their optimum utilization. These measures must be based on the best scientific evidence available and must be designed to maintain or restore stocks at levels capable of producing the maximum sustainable yield.

Article 5 of the Agreement requires states to apply the precautionary approach to fisheries management. The detailed provisions on the precautionary approach are found in Article 6 and Annex II. States shall apply the precautionary approach widely to conservation, management and exploitation of straddling and highly migratory fish stocks in order to protect the living marine resources and to preserve the marine environment. Essential to the conservation of marine species is the need to develop a holistic approach to managing fish stocks. With this in mind, Article 7 requires compatibility between conservation and management measures applied to species on the high seas and in the EEZs.

The Agreement entered into force after 30 ratifications/accessions in December 2001. It is a binding international legal instrument to which Canada is a Party. While the name of the Agreement suggests that it is an "implementing" instrument for the LOSC, some of its provisions move beyond the LOSC to embrace concepts that were not current during UNCLOS III. The most obvious of these is the "precautionary approach" concept. The Agreement provides detailed guidelines on methods for enforcement on the high seas including basic procedures for boarding and inspection.

In terms of facilitating sustainable use, the Agreement is a significant improvement on the provisions of the LOSC. However, it is too early to assess the extent to which the Agreement will achieve its conservation objectives. Even when it enters into force, it will only bind those states which ratify it unless it can be shown that the provisions of the Agreement have crystallized into customary international law.

Implementation in Canadian law

Signed and ratified by Canada. Consideration will be needed regarding the impacts such ratification may have on the fishing industry and the responsibilities that the Agreement will place on Canada to enforce regional and sub-regional arrangements on the high seas. The fishing industry might also need to develop and employ selective, environmentally safe fishing gear with possible detrimental economic consequences for the industry. Measures to eliminate over-fishing and excess fishing capacity could also impose an extra burden on industry. These matters will have legislative, financial, and institutional implications.

4.3.2.14 The United Nations Food and Agriculture Organization Code of Conduct for Responsible Fisheries

Citation: Food and Agriculture Organization of the United Nations, Code of Conduct for Responsible Fisheries, (Rome: FAO, 1995).

The United Nations Food and Agriculture Organization Code of Conduct for Responsible Fisheries is voluntary (Article 1), global in scope and directed not only at states, but all "members and non-members of FAO, fishing entities, sub-regional, regional and global organisations, whether governmental or non-governmental, and all persons concerned with the conservation of fishery resources and the management and development of fisheries" (Article 1.2) are asked to apply the Code.

In terms of conservation, the Code's objective is to establish principles for responsible fishing and fisheries taking into account all their relevant biological, technological, economic, social, environmental and commercial aspects (Article 2(a)). The Code originates from the Declaration of Cancun which defined responsible fishing as encompassing the sustainable utilisation of fisheries resources in harmony with the environment; the use of capture and aquaculture practices which are not harmful to ecosystems, resources or their quality; the incorporation of added value to such products through transformation processes meeting the required sanitary standards; the conduct of commercial practices so as to provide consumers access to good quality products.

The Code covers a number of issues that will affect the manner in which fishing is carried out. These issues include the establishment of general principles for:

- responsible fishing;

- fisheries management;
- fisheries operations;
- post-harvest practices and trade;
- aquaculture development;
- integrated coastal area management; and
- fisheries research.

The Code broadly endorses the principles necessary for achieving sustainable use of large migratory fish. These include recognition of the need to maintain biological diversity, the adoption of an ecosystem approach to conservation, support for both intergenerational and intragenerational equity, the precautionary principle, international co-operation and informed and transparent decision-making. The Code's applicability to all oceans, including the EEZs, provides for a uniform global standard across all jurisdictions.

Implementation in Canadian law

A Canadian Code of Conduct for Responsible Fishing Operations has been developed and ratified by Canadian commercial fishing organizations, including the Canadian Council of Professional Fish Harvesters, the Fisheries Council of Canada, and mid-shore fleets on the Atlantic Coast. See <http://www.dfo-mpo.gc.ca/communic/fish_man/code/cccrfo-cccppr_e.htm>. The Code has now been ratified by over 80 fish harvester organizations from all regions and fishing sectors throughout the country, accounting for over 90 percent of the commercially harvested fish and seafood in Canada.

4.3.2.15 The Kyoto Declaration

Citation: Kyoto Declaration and Plan of Action on the Sustainable Contribution of Fisheries to Food Security, 9 December 1995, online at United Nations web site: <http://www.un.org/documents/ecosoc/cn17/1996/ecn171996-29.htm> (date accessed: 6 August 2002).

The Kyoto Declaration was produced at the International Conference on the Sustainable Contribution of Fisheries to Food Security, held from 4 to 9 December 1995. While the emphasis of the conference and Declaration was on the sustainable use (exploitation) of fisheries resources, the Declaration makes explicit links to the major international treaties affecting ocean management, and to the softer law codes of conduct. The Declaration notes the LOSC, Agenda 21, the UN Agreement on Straddling and Highly Migratory Fish Stocks, the FAO Code of Conduct for Responsible Fisheries, and the Biodiversity Convention. The Declaration emphasizes the importance of fisheries as a food source for the world's population.

The representatives of 95 States agreed on a set of immediate actions to be taken by States either directly or in cooperation with other states, or through FAO in cooperation with other appropriate intergovernmental organizations and/or regional fishery management organizations or arrangements. These immediate actions include:

- to assess and monitor the present and future levels of global, regional and national production, supply and demand of fish and fishery products and their effects on food security, employment, consumption, income, trade and sustainability of production;
- to enhance subregional and regional cooperation and establish, where it is considered appropriate, subregional and regional fishery conservation and management organizations or arrangements for straddling fish stocks and highly migratory fish stocks; and cooperate to strengthen, where necessary, existing subregional and regional fishery conservation and management organizations and arrangements in order to carry out their assigned task;
- to conduct, within their competencies and, where appropriate, in cooperation with regional and other intergovernmental organizations, integrated assessments of fisheries in order to evaluate opportunities and strengthen the scientific basis for multispecies and ecosystem management;
- to identify and exchange information on potential mechanisms to reduce excess fishing capacity and implement action on programs to reduce excess capacity, where and when appropriate, as soon as possible;
- to develop, promote and facilitate the exchange of information on the use of efficient and standardized methodologies for the study of social, cultural and economic characteristics of fishing and associated activities; and, in particular, attempt to develop methods designed to permit verifiable indicators of the importance of such characteristics and their interaction and compatibility with management objectives;
- to promote the exchange of information amongst research institutes and other relevant entities aiming to: (i) increase opportunities for the sustainable use of unexploited or underexploited species as human food; and (ii) promote and support research activities in order to ensure improvement in scientific knowledge of existing fishery resources;
- to strengthen coordination of national and international research programs aiming to stimulate environmentally sound aquaculture and stocking, giving emphasis to the development of international guidelines for the development and management of activities in particular on:
  - the impacts on the environment and biodiversity;
  - the application of biotechnology; and
  - the health of cultured stocks.

Implementation in Canadian law

The actions outlined above are being operationalized through *Oceans Act* management plans and programs, the *Canada's Oceans Strategy* and its related action plan, and DFO's Integrated Management Policy Framework.

4.3.3 Marine Conservation and Protection

4.3.3.1 The Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention)

Citation: Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention), 2 February 1971, 996 U.N.T.S. 245, reprinted in 11 I.L.M.

969, entered into force: 21 December 1975; Protocol to amend the Convention on Wetlands of International Importance especially as Waterfowl Habitat of February 2, 1971, with annex, 1437 U.N.T.S. 344, reprinted in 22 I.L.M. 698, entered into force: 1 October 1986; with amendments to the Convention on 28 May 1987, entered into force: 1 May 1994.

The Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention) contains the following objectives:

- to promote the conservation of wetlands and waterfowl;
- to establish nature reserves on wetlands;
- to provide adequately for their protection and management; and
- to train personnel competent in the field of wetlands research and management.

These objectives are achieved through inclusion of wetlands in a List of Wetlands of International Importance, and through conservation and protection measures in relation to wetlands.

Implementation in Canadian law

Signed by Canada on 2 February 1971, it entered into force for Canada on 15 May 1981. The lead departments are the Department of Canadian Heritage and Environment Canada. Other interested departments include: Agriculture and Agri-Food Canada, Canadian International Development Agency, Foreign Affairs Canada, Health Canada, Industry Canada, Transport Canada, and International Development Research Centre.

Although Sable Island does not fit the Ramsar definition of wetlands (i.e., areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres), the conservation of waterfowl on Sable Island is under domestic legislation, e.g., *Canada Wildlife Act*. This Convention will be of greater relevance for Phase II of the ESSIM Initiative, which will look at coastal jurisdiction as well as the offshore area.

4.3.3.2 The Declaration of the United Nations Conference on the Human Environment (Stockholm Declaration)

Citation: Declaration of the United Nations Conference on the Human Environment (Stockholm Declaration), 16 June 1972, UN Doc. A/CONF. 48/14/Rev. 1, reprinted in (1972) 11 I.L.M. 1416.

The Declaration of the United Nations Conference on the Human Environment (Stockholm Declaration) is an aspirational declaration setting out twenty-six key environmental principles. Although it is not legally binding, it is considered to be one of the most important international environmental documents as it provides the foundation for subsequent international law instruments. Key principles reiterated in subsequent international instruments include:

- pollution prevention of the seas (Principle 7);
- sustainable and equitable use of non-renewable resources is essential, without mentioning the word "sustainable" (Principle 5);
- recognizes the concept of an "integrated and coordinated" approach to development planning (Principle 13); and
- affirms states' sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause external damage (Principle 21).

Implementation in Canadian law

Although the Stockholm Declaration is a non-binding instrument, many Canadian federal statutes include provisions complying with the Declaration's key principles. These include the following acts:

- *Canadian Environmental Assessment Act*;
- *Canadian Environmental Protection Act, 1999*; and
- *Oceans Act*.

4.3.3.3 The 1972 London Dumping Convention

Citation: Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention) 29 December 1972, 1046 U.N.T.S. 120, entered into force: 30 August 1975; and 1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 and Regulations adopted by the Special Meeting, LC/SM 1/6, 14 November 1996.

The 1972 London Convention is global in character and represents a further step towards the international control and prevention of marine pollution. It prohibits the dumping of certain hazardous materials, requires a permit for the dumping of a number of other identified materials and a permit for other wastes or matter. Dumping has been defined as the deliberate disposal at sea of wastes or other matter from vessels, aircraft, platforms or other man-made structures, as well as the deliberate disposal of these vessels or platforms themselves. Wastes derived from the exploration and exploitation of sea-bed mineral resources are, however, excluded from the definition.

The Convention's provisions shall not apply when it is necessary to secure the safety of human life or of vessels in cases of *force majeure*. Contracting parties must undertake to designate an authority to deal with permits, keep records, and monitor the condition of the sea. Other articles are designed to promote regional co-operation, particularly in the fields of monitoring and scientific research. Annexes I and II list wastes which cannot be dumped and others for which a special dumping permit is required. The criteria governing the issuing of these permits are laid down in a third Annex that deals with the nature of the waste material, the characteristics of the dumping site and method of disposal.

Implementation in Canadian law

The London Convention is a binding legal treaty and Canada has established the necessary legal and institutional framework to satisfy the provisions of the Convention. While not in force internationally, the 1996 Protocol to the London Convention Canada was ratified by Canada on May 15, 2000 and the provisions of the protocol were incorporated into *CEPA 1999*. Thus, in Canada, the less restrictive London Convention requirements are out of date. The lead department implementing the Convention is Environment Canada. Other interested departments include: Fisheries and Oceans Canada, Foreign Affairs Canada, Industry Canada, Natural Resources Canada, and Transport Canada. Potential materials dumped on the Eastern Scotian Shelf include fish offal from processing plants, the frequency of which is unknown.

4.3.3.4 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES Convention)

Citation: Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES Convention), 3 March 1973, 993 U.N.T.S. 243, reprinted in 12 I.L.M. 1085, entered into force 1 July 1975, with amendments.

The CITES Convention regulates trade in species threatened with extinction and imposes specific obligations upon states. The Convention has three Appendices, each of which contains a list of species that are afforded certain protection from trade and are subject to varying degrees of regulation (Article II). Appendix I includes all species threatened with extinction which are or may be affected by trade. Appendix II includes species that although are not now threatened with extinction may become so if trade is not strictly regulated, and other species that must be regulated in order to bring trade in the first category of species in the Appendix under effective control. Appendix III includes all species that any state party identifies as being subject to regulation within its jurisdiction.

Implementation in Canadian law

The lead department implementing the Convention is Environment Canada. Other interested departments include: Agriculture and Agri-Food Canada, Canadian International Development Agency, Fisheries and Oceans Canada, Foreign Affairs Canada, Industry Canada, Natural Resources Canada, Public Works and Government Services Canada, and Canada Customs and Revenue Agency.

Although the northern bottlenose whale, a year-round Gully resident, is designated an endangered Species by the Committee on Endangered Wildlife Species in Canada (COSEWIC), it is not commercially traded and is therefore not protected by CITES.

There are indications that a number of large pelagics found on the eastern Scotian Shelf, including Atlantic bluefin, albacore, and bigeye tunas and a number of shark species may meet the criteria for protection at least under Appendix II. There have been no listings to date. This is because, as with the Bonn Convention (outlined in section 4.3.3.5), there are a number of practical problems associated with gaining protection for species under CITES. The requirement that a species be nominated by a State Party and accepted by the Conference of the Parties has meant that the species listed are mainly those that do not have major commercial value. There is considerable lobbying by industry for states not to nominate species that are commercially exploited. Within the CITES forum, there has been very little discussion of fisheries matters. Some discussion was generated at the eighth meeting of the Conference of the Parties (Kyoto, March 1992) as a result of the submission of proposals to include populations of herring and bluefin tuna in the appendices. These proposals were withdrawn following brief discussions in the committee stage of the meeting. Since then, conservation groups and some countries have continued to push for the inclusion of some marine species of commercial value, such as the Atlantic bluefin tuna under Appendix I. The proposals have not been successful because of the pressure from states whose nationals commercially exploit the species. For example, there was an attempt by Sweden in 1992 to include Atlantic bluefin tuna on Appendix I of CITES. The proposal was not accepted due to opposition by members of the Commission for the Conservation of Atlantic Tunas. Similarly, an attempt by Kenya in 1994 to get northern and southern bluefin tuna listed on Appendix II of CITES was unsuccessful.

4.3.3.5 Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention)

Citation: Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention), 23 June 1979, (1990) B.T.S. 87, reprinted in 19 I.L.M. 15, entered into force: 1 November 1983.

The Bonn Convention provides a framework for enhancing the conservation status of rare and threatened migratory species. Migratory species is defined as "the entire population or any geographically separate part of the population of any species or lower taxon of wild animals, a significant proportion of whose members cyclically and predictably cross one or more national jurisdictional boundaries" (Article I).

The Convention establishes three degrees of status for migratory species, 'endangered', 'favourable', and 'unfavourable'. For a migratory species to be considered 'endangered' it must be in danger of extinction throughout all or a significant portion of its range. The conservation status of a migratory species is considered 'favourable' if the population is maintaining itself on a long-term basis as a viable component of its ecosystem(s), its range is not being reduced, there is and will continue to be sufficient habitat for the species on a long-term basis, and the distribution and abundance of the species approaches historic coverage and levels as much as is allowed by extant suitable ecosystems and wise wildlife management. The status of a migratory species is 'unfavourable' if any of the conditions for its status to be 'favourable' is not met (Article I).

The nomination by a state of 'unfavourable' status for the Atlantic bluefin tuna would have to be agreed by the Conference of Parties to the Bonn Convention before being recommended to the International Commission for the Conservation of Atlantic Tunas (ICCAT), whose jurisdiction tunas fall under. However, states have not actively promoted the Bonn Convention for the conservation of large migratory tunas. Its profile has been very low in the ranks of international conservation conventions and it is likely to be sidelined by the 1992 Biodiversity Convention.

Implementation in Canadian law

It is unclear if the northern bottlenose whale, with a COSEWIC status of endangered species, fits the Bonn Convention definition of migratory species in view of its year-round use of the Sable Gully for feeding and breeding. More information is needed on northern bottlenose whale seasonal migration patterns.

4.3.3.6 World Charter for Nature

Citation: World Charter for Nature, adopted by United Nations General Assembly Resolution 37/7, 28 October 1982.

The World Charter for Nature is a non-binding international instrument that articulates its provisions in a general way and does not impose direct obligations on Canada. It proclaims general principles of conservation "by which all human conduct affecting nature is to be guided and judged" (Preamble). Its principles call for:

- nature to be respected and its essential processes not to be impaired;
- the maintenance of genetic viability and protection of habitats;
- special protection for unique areas;
- management of ecosystems and organisms to achieve and maintain "optimum sustainable productivity"; and
- the protection of nature against destruction caused by warfare and hostilities.

The Charter emphasizes the importance of consideration for natural systems in the planning and implementation of social and economic development activities. Article II stipulates that natural resources shall not be wasted, but used with a restraint appropriate to the principles set forth in the Charter; activities which might impact on nature shall be controlled and risks minimized by use of the best available technologies; discharge of pollutants shall be avoided wherever possible; and natural disaster or disease prevention measures shall avoid adverse side effects on nature.

Since the Charter was adopted by the United Nations General Assembly, many of its principles have been developed further in other international legal instruments. Such development is consistent with Article III of the Charter that provides that "the principles set forth in the present Charter shall be reflected in the law and practice of each state, as well as at the international level". Also, despite its non-binding nature, the Charter declares that "each person has a duty to act in accordance with the provisions of the present Charter; acting individually, in association with others or through participation in the political process, each person shall strive to ensure that the objectives and requirements of the present Charter are met."

Implementation in Canadian law

There is no explicit implication for the eastern Scotian Shelf ecosystem arising from the Charter. The principles espoused have been adopted by the *Oceans Act* and the *Species at Risk Act*, among others.

4.3.3.7 United Nations Convention on the Law of the Sea (LOSC)

Citation: United Nations Convention on the Law of the Sea (LOSC), 10 December 1982, UN Doc. A/CONF. 62/122, reprinted in (1982) 21 I.L.M. 1261, entered into force: 16 November 1994.

The United Nations Convention on the Law of the Sea (LOSC), represents a shift in the focus of oceans governance as it includes not only provisions outlining the various national maritime jurisdictions, but also provides for the conservation of the marine environment. Part XII on the Protection and Preservation of the Marine Environment provides a comprehensive framework of measures to protect the marine environment. This part imposes an obligation on all states to protect and preserve the marine environment and to enact appropriate legislation to give effect to their obligations.

Implementation in Canadian law

Canada ratified the LOSC in November 2003 and the federal 1997 *Oceans Act* satisfied the international obligations for marine conservation through precautionary approaches to marine ecosystem health.

4.3.3.8 Vienna Convention for the Protection of the Ozone Layer

Citation: Vienna Convention for the Protection of the Ozone Layer, 22 March 1985, C.T.S. 1988/23, reprinted in 26 I.L.M. 1516, entered into force: 22 September 1988; and Montreal Protocol on Substances that Deplete the Ozone Layer, 16 September 1987, C.T.S. 1989/42, reprinted in 26 I.L.M. 1541, entered into force: 1 January 1989.

The Convention for the Protection of the Ozone Layer requires Parties to take appropriate measures to protect human health and the environment against adverse effects resulting from human activities which modify or are likely to modify the ozone layer (Article 2). The Parties must undertake research and scientific assessments on matters associated with the ozone layer (Article 3).

The Montreal Protocol attaches to the 1987 Convention. The Protocol lists certain gases that are harmful to the ozone layer and sets specific dates by which they are to be banned or production and use curtailed. The applicability of this instrument now lies mostly on the likelihood of its failure to achieve an effective enough control regime to protect delicate coastal and marine environments from the harmful effects of a diminished ozone layer. The Montreal Protocol is noteworthy also because it was one of the earliest instruments to apply a precautionary approach by taking action against certain substances before there was conclusive proof that they were harmful.

Implementation in Canadian law

The lead department implementing the Convention is Environment Canada. Other interested departments include: Agriculture and Agri-Food Canada, Canadian International Development Agency, Fisheries and Oceans Canada, Health Canada, Industry Canada, and Public Works and Government Services Canada.

In addition to the need for the precautionary approach to environmental management adopted under the Montreal Protocol, implications for the Eastern Scotian Shelf ecosystem arising from this Convention include research on depleted ozone and the effects on marine biological productivity from increased UV radiation.

4.3.3.9 Convention on Environmental Impact Assessment in a Transboundary Context

Citation: Convention on Environmental Impact Assessment in a Transboundary Context, 25 February 1991, reprinted in 30 I.L.M. 800, online at: <http://www.unece.org/env/eia/welcome.html> (date accessed: 6 August 2002), entered into force: 10 September 1997.

The United Nations Economic Commission for Europe's (ECE) Convention on Environmental Impact Assessment in a Transboundary Context was concluded to prevent, reduce, and control significant adverse transboundary environmental impacts of certain projects on ECE member countries. Parties to this Convention must ensure that an environmental impact assessment is carried out prior to authorising or undertaking certain projects that are likely to cause significant adverse transboundary impacts. Parties are to assess the environmental impact of certain activities and notify and consult each other on all major projects that are likely to have adverse environmental impact across State boundaries.

This is a legally binding instrument that imposes specific obligations on Canada as a state party. Obligations under the Convention are owed only to other nations that have also ratified the Convention. As France approved this Convention in 2001, there would be a requirement to consult France regarding future developments (e.g., offshore ocean mining, oil and gas developments) on the Eastern Scotian Shelf that may have impacts on the St. Pierre and Miquelon zone. Foreign public participation requirements are imposed on Canada.

Implementation in Canadian law

Canada ratified the Convention on 19 May 1998 (see: <http://www.ceaa.gc.ca/rel980519_e.htm> Canada made a reservation when ratifying this Convention limiting its application only to proposed activities requiring an EIA under the *Canadian Environmental Assessment Act*. The lead department is the Canadian Environmental Assessment Agency. Other interested departments include: Department of Foreign Affairs, Environment Canada and Fisheries and

Oceans Canada. Appendix I of the Convention indicates that offshore hydrocarbon production requires an environmental impact assessment.

4.3.3.10 United Nations Framework Convention on Climate Change and Kyoto Protocol

Citation: United Nations Framework Convention on Climate Change, 9 May 1992, C.T.S. 1994/7, reprinted in 31 I.L.M. 849, entered into force: 21 March 1994.

The United Nations Framework Convention on Climate Change (UNFCCC) is intended to achieve stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous interference with the climate system and within a timeframe sufficient to allow ecosystems to adapt naturally to climate change and to enable sustainable food production and economic development.

The text of the Kyoto Protocol to the UNFCCC was adopted on 11 December 1997; it was open for signature from 16 March 1998 to 15 March 1999 at United Nations Headquarters, New York. By that date the Protocol had received 84 signatures. Those Parties that have not yet signed the Kyoto Protocol may accede to it at any time. The Protocol is subject to ratification, acceptance, approval or accession by Parties to the Convention. It shall enter into force on the ninetieth day after the date on which not less than 55 Parties to the Convention, incorporating Annex I Parties which accounted in total for at least 55 percent of the total carbon dioxide emissions for 1990 from that group, have deposited their instruments of ratification, acceptance, approval or accession.

Implementation in Canadian law

The lead departments implementing the Convention are Environment Canada and Natural Resources Canada. Other interested departments include: Foreign Affairs Canada, Agriculture and Agri-Food Canada, Canadian International Development Agency, Fisheries and Oceans Canada, Industry Canada, and Indian Affairs and Northern Development.

There is no explicit implication for the Eastern Scotian Shelf ecosystem arising from the Climate Change Convention. However, different sectors in this region could look at initiatives for fuel efficiencies.

4.3.3.11 Declaration of the UN Conference on Environment and Development (Rio Declaration)

Citation: Declaration of the United Nations Conference on Environment and Development (Rio Declaration), 13 June 1992, UN Doc. A/CONF.151/5/Rev.1, reprinted in (1992) 31 I.L.M. 874, endorsed by UN General Assembly Resolution 47/190 (1992).

The Declaration of the UN Conference on Environment and Development (Rio Declaration) reaffirms the Declaration of the United Nations Conference on the Human Environment 1972 (Preamble), but introduces new principles such as:

- polluter pays principle (Principle 16);
- public participation (Principle 10);
- precautionary principle (Principle 15);
- environmental impact assessment (Principle 17); and
- a "vital" role for women and indigenous people in environmental management (Principles 20 and 22 respectively).

Implementation in Canadian law

Although not legally binding, the Rio Declaration has been influential in environmental policy formulation at the national level since 1992 and in international agreements, e.g., UNFA. For example, concepts in the Rio Declaration such as the polluter pays principle, the precautionary approach, public participation, and environmental impact assessment are reflected in the federal *Oceans Act*.

Interested departments include: Agriculture and Agri-Food Canada, Department of Foreign Affairs, Environment Canada, Health Canada, Indian Affairs and Northern Development, and Transport Canada.

4.3.3.12 Convention on Biological Diversity (Biodiversity Convention)

Citation: Convention on Biological Diversity, 5 June 1992, (1995) B.T.S. 51, reprinted in 31 I.L.M. 818, entered into force: 29 September 1993.

The Convention on Biological Diversity (Biodiversity Convention) has as its objectives "the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and technologies, and by appropriate funding" (Article 1). The Convention does not define "conservation" but the definition of "sustainable use" as "the use of the components of biological diversity in a way and at a rate that does not lead to long term decline of biological diversity" (Article 2) serves as a definition of conservation. For the purposes of the Biodiversity Convention, the term "biological resources" includes "genetic resources, organisms or parts thereof, populations, or any other biotic component of ecosystems with actual or potential use value for humanity" (Article 2). The Convention recognises the importance of biodiversity at the genetic, species and ecosystem levels.

The Biodiversity Convention establishes a framework for achieving the in-situ and ex-situ conservation of biological diversity (Articles 8 and 9) with the major emphasis being placed on in-situ conservation (Article 2). The obligation placed on State Parties is to identify and monitor

> "species and communities which are threatened; wild relatives of domesticated or cultivated species; species of medicinal, agricultural or other economic value; species of social, scientific or cultural importance; or species of importance for research into the

> conservation and sustainable use of biological diversity, such as indicator species" (Article 7 and Annex 1(2))

This monitoring role is highly relevant to the conservation of marine species because of the paucity of data on their status.

The implications of the Biodiversity Convention for the Eastern Scotian Shelf and the capacity of the Convention to promote the conservation of marine life will depend on the successful adoption of specific instruments that supplement the Convention. The Conferences of Parties have developed a series of recommendations and decisions, such as the Jakarta Mandate. The Biodiversity Convention is intended to provide a framework for subsequent actions and agreements. The success of the Convention depends ultimately on the development and implementation of national measures and it is in this sense that integrated management can play a role. Indices of marine biodiversity on the Eastern Scotian Shelf require further elaboration and ongoing monitoring.

Implementation in Canadian law

Canada signed and ratified the Biodiversity Convention in 1992. The lead department implementing the Convention is Environment Canada. Other interested departments include: Agriculture and Agri-Food Canada, Canadian International Development Agency, Department of Canadian Heritage, Fisheries and Oceans Canada, Foreign Affairs Canada, Health Canada, Industry Canada, International Development Research Centre, Natural Resources Canada, and Indian Affairs and Northern Development.

The Government of Canada has taken its commitment to implement the Biodiversity Convention seriously. First, it has published two policy papers outlining the Canadian response to the Convention: the 1995 *Canadian Biodiversity Strategy Canada's Response to the Convention on Biological Diversity* and the 1998 *Conserving Wildlife Diversity Implementing the Canadian Biodiversity Strategy*. Secondly, it signed the Cartagena Protocol to the Convention on Biological Diversity in April 2001, in order to commit to the regulation of transboundary movement of living organisms that are the products of biotechnology and that may have adverse effects on biodiversity. The Canadian government enacted the *Species at Risk Act* in 2003.

4.3.3.13 Jakarta Mandate on Marine and Coastal Biological Diversity

Citation: Jakarta Mandate on Marine and Coastal Biological Diversity, adopted at the Second Meeting of the Conference of the Parties to the Convention on Biological Diversity, UN Doc. UNEP/CBD/COP/2/19 and UN Doc. UNEP/CBD/COP/2/5, online: <http://www.biodiv.org/programmes/areas/marine/default.asp> (date accessed 6 August 2002).

The Jakarta Mandate addresses specifically the relationships among conservation, the use of biological diversity and fishing activities. Concern about the over-exploitation of marine biodiversity has resulted in the marine environment being one of the first substantive issues to be addressed by the Parties to the Biodiversity Convention. The focus of the Jakarta Mandate is demonstrated clearly by the list of action items identified in the instrument:

- integrated coastal area management;
- the development of marine protected areas for conservation and sustainable resource use;
- sustainable fisheries;
- mariculture;
- introduced marine species;
- biodiversity identification;
- monitoring of status and threats;
- capacity building and genetic resources; and
- transboundary and global impacts.

It also identifies five general principles: wide consultation and public participation, combination of national action with regional and global cooperation, the provision of technology and financing, integration of the action items, and the adoption of a precautionary approach, all of which have direct relevance for the Eastern Scotian Shelf.

Implementation in Canadian law

The intent of the Jakarta Mandate is reflected in the *Oceans Act*. The high profile of marine biodiversity conservation issues under the Biodiversity Convention means that, in the future, measures may be adopted which could operate to: "condition access to the fisheries resources of the high seas and thus establish minimum standards for flag states; establish minimum standards for coastal state regulations for fishing activities within ocean areas where they exercise jurisdiction; and institute minimum standards which coastal and flag states must meet in their co-operative endeavours". These standards would need to be taken into consideration in the Eastern Scotian Shelf Integrated Management Plan.

4.3.3.14 Chapter 17 of Agenda 21: Programme of Action for Sustainable Development

Citation: Agenda 21: Programme of Action for Sustainable Development (Agenda 21), Chapter 17, "Protection of the oceans, all kinds of seas, including enclosed and semi-enclosed seas, and coastal areas and the protection, rational use and development of their living resources" June 1992, UN Doc. A/CONF. 151/26/REV. 1, Vols. I–III (1992), reprinted in S. P. Johnson, ed., *The Earth Summit: The United Nations Conference on Environment and Development* (London: Graham and Trotman/Martinus Nijhoff, 1993) 123.

Chapter 17 of Agenda 21 explains that "international law, as reflected in the provisions of the United Nations Convention on the Law of the Sea, ... sets forth rights and obligations of states and provides the international basis upon which to pursue the protection and sustainable development of the marine and coastal environment and its resources." However, Agenda 21 moves beyond the immediate obligations prescribed in the LOSC to assert that protection and sustainable development of the marine and coastal environment and its resources requires new approaches to management and development that are "integrated in content and are precautionary and anticipatory in ambit". Chapter 17 lists seven program areas requiring action:

1. Integrated management and sustainable development of coastal areas, including exclusive economic zones;
2. Marine environmental protection;
3. Sustainable use and conservation of marine living resources of the high seas;
4. Sustainable use and conservation of marine living resources under national jurisdiction;
5. Addressing critical uncertainties for the management of the marine environment and climate change;
6. Strengthening international, including regional, cooperation and coordination; and
7. Sustainable development of small islands.

While the LOSC establishes the basic framework for the rights and obligations of states with regard to the oceans, Chapter 17 provides the basis upon which to pursue the protection and sustainable development and management of the marine environment and ocean resources. Chapter 17 provides the policy content for the implementation of the LOSC at the domestic level by elaborating mechanisms at the national level that will facilitate the implementation of the resources and environmental aspects of the LOSC.

Implementation in Canadian law

Canada accepted Agenda 21 and will implement the prescriptive direction and guidance in Chapter 17 of Agenda 21 through Canada's Oceans Strategy and the *Oceans Act*.

4.3.3.15 North American Agreement on Environmental Cooperation

Citation: North American Agreement on Environmental Cooperation between the Government of Canada, the Government of the United Mexican States and the Government of the United States of America, 12 and 14 September 1993, reprinted in 32 I.L.M. 1480 and online at: <http://www.cec.org/pubs_info_resources/law_treat_agree/naaec/index.cfm?varlan=english> (date accessed: 6 August 2002), entered into force: 1 January 1994

The North American Agreement on Environmental Cooperation is a trilateral agreement between Canada, the United States and Mexico, complementing the environmental provisions of the North American Free Trade Agreement (NAFTA), with the objectives of:

- promoting sustainable development;
- encouraging pollution prevention policies and practices; and
- enhancing compliance with environmental laws.

Created by the Agreement, the Council on Environmental Cooperation (CEC) has the authority to develop recommendations on transboundary and border issues, such as the long-range transport of air and marine pollutants and many other issues related to marine environmental protection, including:

- pollution prevention;
- exotic species; conservation of wild flora and fauna and their habitat;
- endangered and threatened species protection;
- environmental impact assessment; and
- environmental emergency preparedness and response activities.

Implementation in Canadian law

Entered into force in Canada on 1 January 1994, the lead department implementing the Convention is Environment Canada. Other interested departments include: Agriculture and Agri-Food Canada, Foreign Affairs Canada, Health Canada, Indian Affairs and Northern Development, Industry Canada, Natural Resources Canada, and Transport Canada.

This agreement may be used by NGOs to challenge Canada's enforcement of laws relating to marine environmental protection, including, *inter alia*:

- habitat protection sections of the *Fisheries Act*;
- pollution prevention provisions of *CEPA*;
- marine protected area provisions of the *Oceans Act*; or
- environmental impact assessment provisions applicable to coastal or ocean projects under *CEAA*.

4.3.3.16 IUCN (the World Conservation Union) International Covenant on Environment and Development

Citation: IUCN (the World Conservation Union) Draft International Covenant on Environment and Development, 2000, available online at IUCN web site: <http://www.iucn.org/themes/law/pdfdocuments/EPLP31ENsecond.pdf> (date accessed: 6 August 2002.)

The IUCN International Covenant on Environment and Development (the Covenant), is an umbrella instrument that provides the legal framework to support the further integration of environment and developmental issues on a global basis. The Covenant elaborates on the principles in the Rio Declaration, Agenda 21, the Climate Change Convention and the Biodiversity Convention by addressing all aspects of sustainable development in a single instrument. Its objective is to "establish integrated obligations to achieve the environmental conservation and sustainable development necessary for humans to enjoy a healthy and productive life within nature" (Article 1).

In addition to general principles and concepts on sustainability, the Covenant puts obligations on individual sectors for pollution control, waste management and the sustainable use of biological resources. If adopted by the UN as a treaty, it would impose significant obligations on all parties and make sustainable development an international requirement.

Implementation in Canadian law

The Covenant has no legal status at the moment and does not impose any obligations on Canada.

4.3.3.17 The Washington Declaration on Protection of the Marine Environment from Land-based Activities and Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA)

Citation: Washington Declaration on Protection of the Marine Environment from Land-based Activities, Report of the Conference, 3 November 1995, UNEP (OCA)/LBA/IG.2/6, Annex II, reprinted in (1996) 26 Environmental Policy and Law 37; and Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA), 5 December 1995, UNEP (OCA)/LBA/IG.2/7, reprinted in (1996) 26 Environmental Policy and Law 38.

The Washington Declaration on Protection of the Marine Environment from Land-based Activities and Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA) builds on the United Nations Conference on Environment and Development (UNCED) principles and provides guidelines in devising and implementing sustained action to prevent, reduce, control and/or eliminate marine degradation from land-based activities. It will be implemented at national, regional and global levels, and formulations of national, sub-regional and regional action programs will be the cornerstone for successful implementation of the GPA. The GPA provides approaches to prevent pollution sources including sewage, persistent organic pollutants, radioactive substances, heavy metals, oil (hydrocarbons), nutrients, sediment mobilisation, litter and the physical alteration and destruction of habitats.

Implementation in Canadian law

Canada's support for the GPA is being delivered through the National Programme of Action (NPA) finalized in 2000, led by DFO and Environment Canada to focus and coordinate programs. Foreign Affairs Canada is also involved at the international level.

4.3.3.18 The 1916 Convention Between the United Kingdom and the United States of America for the Protection of Migratory Birds in Canada and the United States

Citation: The 1916 Convention Between the United Kingdom and the United States of America for the Protection of Migratory Birds in Canada and the United States and the 1995 Protocol are appended to the *Migratory Birds Convention Act, 1994*, available online: http://laws.justice.gc.ca/en/M-7.01/text.html.

The *Migratory Birds Convention* of 1916, which was implemented by the *Migratory Birds Convention Act, 1917*, provides for cooperation between Canada and the United States in the protection and management of migratory birds. The Convention, done 16 August 1916, made it unlawful to pursue, hunt, take, capture or kill, possess, offer to sell or sell, barter, purchase, deliver, transport, import or receive any migratory bird part, nest, egg or product, unless permitted by regulation. The 1995 Protocol amending the 1916 Convention, done 14 December

1995, between the Government of Canada and the Government of the United States of America, emphasizes the need to provide for and protect necessary habitat for the conservation of migratory birds.

Implementation in Canadian Law

The 1916 Convention is implemented via the federal *Migratory Birds Convention Act, 1994*. This Act and its complementary regulations ensure the conservation of migratory bird populations by regulating potentially harmful human activities. A permit must be issued for all activities affecting migratory birds, with some exceptions detailed in the regulations. Although not specifically a marine convention, the Convention affects the management of migratory bird species on the Scotian Shelf.

4.3.3.19 Johannesburg Plan of Implementation from the World Summit on Sustainable Development, 2002

Citation: Johannesburg Plan of Implementation from the World Summit on Sustainable Development, 2002 available at: http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/POIChapter1.htm

The Plan of Implementation of WSSD will further build on the achievements made since the 1992 United Nations Conference on Environment and Development and expedite the realization of the remaining goals. Chapter IV deals with protecting and managing the natural resource base of economic and social development. Sections 30–36 cover broad aspects related to oceans, sustainable fisheries, marine pollution, maritime safety, and scientific understanding and assessment of marine and coastal ecosystems as a fundamental basis for sound decision making.

Implementation in Canadian law

Canada supported the adoption of the WSSD Plan of Implementation and will implement the prescriptive direction and guidance through Canada's Oceans Strategy and the *Oceans Act*.

4.3.4 Marine Science and Technology

4.3.4.1 Convention of the World Meteorological Organization (WMO Convention)

Citation: Convention of the World Meteorological Organization (WMO Convention), 11 October 1947, 77 U.N.T.S. 143, entered into force: 23 March 1950; amendments to the Convention adopted by resolutions of the World Meteorological Organization: 1 April 1959 (Art. 10(1) (2), 15 April 1959 (Art. 13), 11 and 27 April 1963 (several articles), 11 and 26 April 1967 (Arts. 4(b), 12(c) and French text of Art. 13(a)), 28 April and 23 May 1975 (several articles).

The Convention of the World Meteorological Organization (WMO Convention) created the WMO to:

- facilitate worldwide cooperation in the establishment of networks of meteorological observation stations and centres;
- promote the establishment and maintenance of systems for the rapid exchange of weather information;
- promote standardisation and uniform publication of meteorological observations and statistics;
- further the application of meteorology to aviation, shipping, agriculture, and other human activities; and
- encourage meteorological research and training (Article 2).

Article 8 of the WMO Convention requires that all members do their utmost to implement the decisions of the World Meteorological Congress, and provides that if a Member finds it impracticable to give effect to some requirement in a technical resolution adopted by Congress, then reasons for its inability to implement the decision shall be given along with indication of whether the inability to comply is provisional or permanent.

Implementation in Canadian law

Canada is a member of the World Meteorological Organization. The Atmospheric Environment Service (AES) of Environment Canada provides monthly climate data to the WMO from Canadian climate stations. Other interested departments include Natural Resources Canada and Fisheries and Oceans Canada.

4.3.4.2 Convention for the International Council for the Exploration of the Sea (ICES Convention)

Citation: Convention for the International Council for the Exploration of the Sea, (ICES Convention), 12 September 1964, 652 U.N.T.S. 237, reprinted in 7 I.L.M. 302, entered into force: 22 July 1968; Protocol to the Convention for the International Council for the Exploration of the Sea of September 12, 1964, 13 August 1970, 1003 U.N.T.S. 402, entered into force: 12 November 1975.

The Convention for the International Council for the Exploration of the Sea (ICES Convention) provides advice at the international level on scientific and policy matters concerning fisheries, pollution, and other marine environment issues.

Implementation in Canadian law

Canada ratified the ICES Convention in 1968. Eleven DFO institutes are associated with ICES and Canadian scientists from several departments and agencies participate in many of the ICES Working Groups that provide advice on the marine environment.

4.3.4.3 Convention on the International Hydrographic Organization

Citation: Convention on the International Hydrographic Organization, 3 May 1967, 751 U.N.T.S. 41, entered into force: 22 September 1970.

Created by the Convention on the International Hydrographic Organization, the International Hydrographic Organization (IHO) acts as an intergovernmental consultative and technical organization. The IHO's purpose is to establish the safety of navigation and the protection of the marine environment by coordinating and promoting the adoption of reliable and efficient scientific practice in hydrography and navigation.

Implementation in Canadian law

The Canadian Hydrographic Service participates in the technical and consultative processes of the IHO.

4.3.5 Marine Transportation

4.3.5.1 Convention on the Intergovernmental Maritime Consultative Organization (now International Maritime Organization)

Citation: Convention on the Intergovernmental Maritime Consultative Organization, 6 March 1948, 289 U.N.T.S. 48, entered into force: 17 March 1958, amended in: 15 September 1964 (articles 17 and 18), 28 September 1965 (article 28), 17 October 1974 (articles 10, 16–18, 20, 28, 31, and 32), 14 November 1975 (change of name to International Maritime Organization (IMO) and substantive provisions of the convention), 9 November 1977 (rectification of previous resolution), 17 November 1977 (institutionalization of the Committee on Technical Cooperation), 15 November 1979 (articles 17, 18, 20, and 51), 7 November 1991 (institutionalization of the Facilitation Committee), and 4 November 1993 (articles 16, 17 and 19) (entry into force of amendments on various dates).

The International Maritime Organization was established to provide the machinery for co-operation among member states in the field of governmental regulation and practices relating to technical matters affecting shipping engaged in international trade. The IMO encourages the general adoption of the highest practicable standards in matters concerning maritime safety. IMO functions are limited to a consultative and advisory role, without enforcement capacity.

IMO's Marine Safety Committee undertakes duties with regard to matters concerning navigational aids, construction and manning of vessels, handling of dangerous goods, collision prevention rules, etc. In 1975, amendments were made to establish the Legal Committee and the Marine Environment Protection Committee (MEPC). These Committees support the international instruments for which IMO is the administrative body. These instruments are occasionally amended by the Parties to the instrument in response to recommendations arising from IMO Committees. Some instruments, such as the Safety of Life at Sea (SOLAS)

Convention (section 4.3.5.11), are amended under the 'tacit agreement' principle where a state becomes bound after a period of time unless it lodges a reservation to the amendment.

Implementation in Canadian law and policy

Canada is a signatory to the 1948 IMO Convention and the 1991/93 Amendments. Canadian accessions respecting IMO conventions are generally, but not exclusively, enabled by *Canada Shipping Act* legislation, which includes Governor-in-Council regulations. Canada is an active participant in IMO bodies and committees.

4.3.5.2 Convention on Facilitation of International Maritime Traffic

Citation: Convention on Facilitation of International Maritime Traffic (Facilitation Convention), 9 April 1965, 591 U.N.T.S., reprinted in 4 I.L.M. 502, entered into force: 5 March 1967; amendment to annex: 15 December 1969, entered into force: 12 August 1971; amendment to text of Article VII: 19 November 1973, entered into force: 2 June 1984.

The Convention on Facilitation of International Maritime Traffic (Facilitation Convention) is to prevent unnecessary delays in maritime traffic, to aid co-operation between governments, and to secure the highest practicable degree of uniformity in formalities and other procedures. The Annex to the Convention contains provisions relating to the arrival, stay and departure of ships and persons, health and quarantine, and sanitary measures for plants and animals. These provisions are divided into standards and recommended practices, and the documents that should be required by governments are listed. The Convention had amendments in 1999 and 2002, including new standards and recommended practices for dealing with stowaways.

The Protocol was primarily adopted in order to harmonize the Convention's survey and certification requirement with those contained in SOLAS (discussed in section 4.3.5.11) and MARPOL 73/78 (discussed in section 4.3.5.10). All three instruments require the issuing of certificates to show that requirements have been met and this has to be done by means of a survey that can involve the ship being out of service for several days.

Implementation in Canadian law

Canada is a signatory to the 1965 Facilitation Convention.

4.3.5.3 International Convention on Load Lines, 1966

Citation: International Convention on Load Lines, 1966 (Load Lines Convention), 5 April 1966, 640 U.N.T.S. 133, entered into force: 21 July 1968; and Protocol of 1988 relating to the International Convention on Load Lines of April 5, 1966, 11 November 1988, entered into force: 3 February 2000.

It has long been recognized that limitations on the draught to which a ship may be loaded make a significant contribution to her safety. These limits are given in the form of freeboards, which constitute, besides external weather tight and watertight integrity, the main objective of the Convention. The International Convention on Load Lines, 1966 was based on the principle of reserve buoyancy, although it was recognized that the freeboard should also ensure adequate stability and avoid excessive stress on the ship's hull as a result of overloading. Provisions are made determining the freeboard of tankers by subdivision and damage stability calculations. The regulations take into account the potential hazards present in different zones and different seasons.

The technical annex contains several additional safety measures concerning doors, freeing ports, hatchways and other items. The main purpose of these measures is to ensure the watertight integrity of ships' hulls below the freeboard deck. All assigned load lines must be marked amidships on each side of the ship, together with the deck line. Ships intended for the carriage of timber deck cargo are assigned a smaller freeboard as the deck cargo provides protection against the impact of waves.

The Protocol was primarily adopted in order to harmonize the Convention's survey and certification requirement with those contained in SOLAS (discussed in section 4.3.5.11) and MARPOL 73/78 (discussed in section 4.3.5.10). All three instruments require the issuing of certificates to show that requirements have been met and this has to be done by means of a survey that can involve the ship being out of service for several days.

Implementation in Canadian law

The Load Lines Convention is a binding international instrument to which Canada is a Party. Canada has not signed the 1988 Load Lines Protocol.

4.3.5.4 International Convention on Tonnage Measurement of Ships (Tonnage Convention)

Citation: International Convention on Tonnage Measurement of Ships, 1969, (Tonnage Convention), 23 June 1969, 1291 U.N.T.S., entered into force: 18 July 1982.

The International Convention on Tonnage Measurement of Ships was adopted to introduce a universal tonnage measurement system. The Convention provides for gross and net tonnages, both of which are calculated independently. The gross tonnage is a function of the moulded volume of all enclosed spaces of the ship. The net tonnage is produced by a formula which is a function of the moulded volume of all cargo spaces of the ship. The net tonnage shall not be taken as less than 30 per cent of the gross tonnage. Existing ships, if not converted, were enabled to retain their existing tonnage for 12 years after entry into force and since 18 July 1994 the Convention applies to existing ships as defined in the Convention as well. This was intended to ensure that ships were given reasonable safeguards in the interests of the economic welfare of the shipping industry. On the other hand, an existing ship could be assigned the new tonnage if the owner so wished. As far as possible, the Convention was drafted to ensure that gross and net tonnages calculated under the new system did not differ too greatly from those calculated under existing methods.

Implementation in Canadian law

Canada is a signatory to the 1969 Tonnage Convention.

4.3.5.5 International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties

Citation: International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 29 November 1969, 970 U.N.T.S. 211, entered into force: 6 May 1975; and Protocol Relating to Intervention on the High Seas in Cases of Marine Pollution by Substances other than Oil, 2 November 1973, 1313 U.N.T.S. 3, reprinted in 13 I.L.M. 605, entered into force: 30 March 1983.

The International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties affirms the right of a coastal state to take such measures on the high seas as may be necessary to prevent, mitigate or eliminate danger to its coastline or related interests from pollution by oil or the threat thereof, following a maritime casualty. The coastal state is empowered to take only such action as is necessary, and after due consultations with appropriate interests including, in particular, the flag state(s) of the ship or ships involved, the owners of the ships or cargoes in question and, where circumstances permit, independent experts appointed for this purpose.

A coastal state which takes measures beyond those permitted under the Convention is liable to pay compensation for any damage caused by such measures. Provision is made for the settlement of disputes arising in connection with the application of the convention. The Convention applies to all seagoing vessels except warships or other vessels owned or operated by a state and used on government non-commercial service.

Implementation in Canadian law

Canada did not sign the 1969 Intervention Convention or the 1973 Protocol. As a coastal State, Canada already had much of the authority for intervention set out in the Convention and it felt some of the provisions were confining. The Convention may still have currency for intervention on the high seas (i.e., beyond 200 NM) but this remains to be seen. The *Canada Shipping Act* sets out a very comprehensive pollution regime in the EEZ, which arguably implemented some features of the Intervention Convention.

4.3.5.6 International Convention on Civil Liability for Oil Pollution Damage (CLC)

Citation: International Convention on Civil Liability for Oil Pollution Damage (CLC), 29 November 1969, 973 U.N.T.S. 3, entered into force: 19 June 1975; Protocol, 19 November 1976, entered into force: 8 April 1981; Protocol, 25 May 1984; Protocol, 27 November 1992, entered into force: 30 May 1996.

The purpose of the International Convention on Civil Liability for Oil Pollution Damage is to ensure that adequate compensation is available to persons who suffer oil pollution damage resulting from maritime casualties involving oil-carrying ships. The Convention places the liability for such damage on the owner of the ship from which the polluting oil escaped or was discharged. Subject to a number of specific exceptions, this liability is strict; it is the duty of the owner to prove in each case that any of the exceptions should in fact operate. However, except where the owner has been guilty of actual fault, he may limit his liability in respect of any one incident to slightly over US$125 per ton of the ship's gross tonnage, with a maximum liability of US$14 million per incident.

The Convention requires ships covered by it to maintain insurance or other financial security in sums equivalent to the owner's total liability for one incident. The Convention applies to all seagoing vessels actually carrying oil in bulk as cargo, but only ships carrying more than 2,000 tons of oil are required to maintain insurance in respect of oil pollution damage. This does not apply to warships or other vessels owned or operated by a state and used for government non-commercial service. The Convention, however, applies in respect of the liability and jurisdiction provisions, to ships owned by a state and used for commercial purposes. The only exception as regards such ships is that they are not required to carry insurance. Instead they must carry a certificate issued by the appropriate authority of the state of their registry stating that the ship's liability under the Convention is covered.

While the compensation system established by the 1969 CLC and 1971 Fund Convention had proved very useful, by the mid-1980s it was generally agreed that the limits of liability were too low to provide adequate compensation in the event of a major pollution incident. Under the 1984 CLC Protocol, a ship up to 5,000 gross tonnage will be able to limit its liability to US$3.12 million, while for ships above that size the limit will increase in proportion to their tonnage, up to a maximum of US$62 million for ships of 140,000 gross tons and above. The 1984 Protocol provides for a new and simplified procedure for amending the liability limits in the Protocol.

Implementation in Canadian law

Signed by Canada on 29 November 1969 and entering into force on 24 April 1989, the lead department implementing the Convention is Transport Canada. Other interested departments include: Canadian International Development Agency, Department of Foreign Affairs, Department of Justice and Indian Affairs and Northern Development.

4.3.5.7 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (Fund Convention)

Citation: International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (Fund Convention), 18 December 1971, 1110 U.N.T.S. 57, reprinted in 11 I.L.M. 284, entered into force: 16 October 1978; Protocol to amend the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage of December 18, 1971, 27 November 1992, B.T.S. 87(1996), entered into force: 30 May 1996.

The International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage is to:

(i) provide compensation for pollution damage to the extent that the protection afforded by the 1969 Civil Liability Convention is inadequate;

(ii) give relief to shipowners in respect of the additional financial burden imposed on them by the 1969 Civil Liability Convention, such relief being subject to conditions designed to ensure compliance with safety at sea and other conventions; and

(iii) to give effect to the related purposes set out in the Convention. The Fund is under an obligation to pay compensation to states and persons who suffer pollution damage, if such persons are unable to obtain compensation from the owner of the ship from which the oil escaped or if the compensation due from such owner is not sufficient to cover the damage suffered.

Under the Fund Convention, victims of oil pollution damage may be compensated beyond the level of the shipowner's liability. However, the Fund's obligations are limited so that the total payable to victims by the shipowner and the Fund shall not exceed US$30 million for any one incident. In effect, the Fund's maximum liability for each incident is limited to US$16 million. Where there is no shipowner liable or the shipowner liable is unable to meet his liability, the Fund will be required to pay the whole amount of compensation due. Under certain circumstances, the Fund's maximum liability may increase to not more than US$60 million per incident. With the exception of a few cases, the Fund will be obliged to pay compensation to the victims of oil pollution damage who are unable to obtain adequate or any compensation from the shipowner or his guarantor under the 1969 Convention.

The Fund's obligation to pay compensation is confined to pollution damage suffered in the territories, including the territorial sea of contracting states. The Fund is also obliged to pay compensation in respect of measures taken by a contracting state outside its territory. The Fund can also provide assistance to contracting states that are threatened or affected by pollution and wish to take measures against it. This may take the form of personnel, material, credit facilities or other aid. The Fund is obliged to indemnify the shipowner or his insurer for a portion of the shipowner's liability under the Liability Convention. This portion is equivalent to the lesser of US$100 per ton or US$8.3 million. The Fund is not obliged to indemnify the owner if damage is caused by his wilful misconduct or if the accident was caused even partially because the ship did not comply with certain conventions. The Convention contains provisions on the procedure for claims, rights and obligations, and jurisdiction. Contributions to the Fund should be made by all persons who receive oil by sea in contracting states.

Implementation in Canadian law

Entering into force in Canada on 16 October 1978, the lead department implementing the Convention is Transport Canada. Other interested departments include: Environment Canada, Foreign Affairs Canada and Indian Affairs and Northern Development. The passage of the new *Canada Shipping Act*, currently under revision, should strengthen Canada's compliance mechanisms.

4.3.5.8 Convention on the International Regulations for Preventing Collisions at Sea

Citation: Convention on the International Regulations for Preventing Collisions at Sea, 20 October 1972, 1050 U.N.T.S. 16, entered into force: 15 July 1977.

The Convention on the International Regulations for Preventing Collisions at Sea is a legally binding convention that recognizes traffic separation schemes.

Rule 10 states that vessels using these schemes will be required to proceed in the appropriate traffic lane in the general direction of traffic flow for that lane, keeping clear of a traffic separation line or zone. In so far as is practicable, vessels must avoid crossing traffic lanes. When crossing a lane is necessary, it must be accomplished as nearly as practicable at right angles to the general direction of the traffic flow.

The Convention groups provisions into sections dealing with:

- steering and sailing;
- lights and shapes and sound of lighthouses; and
- light signals.

There are also four Annexes containing technical requirements concerning lights and shapes and their positioning; sound signalling appliances; additional signals for fishing vessels when operating in close proximity, and international distress signals. Guidance is provided in determining safe speed, the risk of collision and the conduct of vessels operating in or near traffic separation schemes. Other rules concern the operation of vessels in narrow channels, the conduct of vessels in restricted visibility, vessels restricted in their ability to manoeuvre, and provisions concerning vessels constrained by their draught.

The rules also include requirements for special lights for certain vessels, including air-cushion vessels operating in the non-displacement mode, a yellow light to be exhibited above the white stern light by vessels engaged in towing, special lights and day signals for vessels engaged in dredging or underwater operations, and sound signals to be given in restricted visibility.

Implementation in Canadian law

Canada is Party to the convention and has legislative and institutional arrangements in place to satisfy all of its obligations under this instrument. The COLREGS are included in the *Canada Shipping Act*.

4.3.5.9 International Convention for Safe Containers

Citation: International Convention for Safe Containers, 2 December 1972, entered into force: 6 December 1977, with amendments to the Convention and Annexes on: 2 April 1981, 13 June 1983, 17 May 1991, 4 November 1993.

The International Convention for Safe Containers, 1972 and Protocol of Signature has two goals. One is to maintain a high level of safety of human life in the transport and handling of containers by providing generally acceptable test procedures and related strength requirements that have proven adequate over the years. The other is to facilitate the international transport of containers by providing uniform international safety regulations, equally applicable to all modes of surface transport. In this way, proliferation of divergent national safety regulations can be avoided.

The requirements of the Convention apply to the great majority of freight containers used internationally, except those designed specially for carriage by air. As it was not intended that all containers or reusable packing boxes should be affected, the scope of the Convention is limited to containers of a prescribed minimum size having corner fittings – devices which permit handling, securing or stacking. The Convention sets out procedures whereby containers used in international transport will be safety-approved by an administration of a contracting state or by an organisation acting on its behalf.

Implementation in Canadian law

Canada is a signatory to the 1972 Convention, but not the 1993 Amendments. Transport Canada is responsible for its implementation under the *Canadian Safe Containers Convention Act*.

4.3.5.10 International Convention for the Prevention of Pollution from Ships, 1973, and the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships of November 2, 1973 (MARPOL 73/78)

Citation: International Convention for the Prevention of Pollution from Ships, 1973, 2 November 1973, 1340 U.N.T.S. 184, not intended to enter into force and be applied on its own but to be incorporated in, and read and interpreted with the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships of November 2, 1973 (MARPOL 73/78), 17 February 1978, 1340 U.N.T.S. 61, reprinted in 17 I.L.M. 546, entered into force: 2 October 1983:

- Annex I (Oil) entered into force: 2 October 1983;
- Annex II (Noxious liquid substances) entered into force: 2 October 1983;
- Annex III (Harmful substances in packaged forms) entered into force: 1 July 1992;
- Annex IV (Sewage) not yet in force;
- Annex V (Garbage) entered into force: 31 December 1988;
- Annex VI (of Protocol) (Air pollution) not yet in force.

International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) covers all technical aspects of pollution from ships, except the disposal of waste into the sea by dumping, and applies to ships of all types, although it does not apply to pollution arising from the exploration and exploitation of sea-bed mineral resources. The Convention has Protocols dealing with reports on incidents involving harmful substances and arbitration. Five annexes contain regulations for the prevention of various forms of pollution: (a) pollution by oil; (b) pollution by noxious liquid substances carried in bulk; (c) pollution by harmful substances carried in packages, portable tanks, freight containers, or road or rail tank wagons, etc.; (d) pollution by sewage from ships; and (e) pollution by garbage from ships.

The 1978 Protocol makes a number of changes to Annex I of the parent convention. Segregated ballast tanks (SBT) are required on all new tankers of 20,000 dead weight tonnage (dwt) and above (in the parent convention SBTs were only required on new tankers of 70,000 dwt and above). The Protocol also requires that SBTs be protectively located, i.e., they must be positioned in such a way that they will help protect the cargo tanks in the event of a collision or grounding.

Another important innovation concerned crude oil washing (COW), which had recently been developed by the oil industry and offered major benefits. Under COW, tanks are washed not with water but with the crude oil cargo itself. COW is accepted as an alternative to SBTs on existing tankers and is an additional requirement on new tankers.

For existing crude oil tankers a third alternative was permissible for a period of two to four years after entry into force of MARPOL 73/78. This is called dedicated clean ballast tanks (CBT) and is a system whereby certain tanks are dedicated solely to the carriage of ballast water. This is cheaper than a full SBT system since it utilizes existing pumping and piping, but when the period of grace has expired other systems must be used. Drainage and discharge arrangements were also altered in the Protocol, regulations for improved stripping systems were introduced.

Some oil tankers operate solely in specific trades between ports that are provided with adequate reception facilities. Some others do not use water as ballast. The TSPP Conference recognized that such ships should not be subject to all MARPOL requirements and they are consequently exempted from the SBT, COW and CBT requirements.

It is generally recognized that the effectiveness of international conventions depends upon the degree to which they are obeyed and this in turn depends largely upon the extent to which they are enforced. The 1978 Protocol to MARPOL therefore introduced stricter regulations for the survey and certification of ships.

This procedure in effect meant that the Protocol had absorbed the parent convention. States that ratify the Protocol must also give effect to the provisions of the 1973 Convention: there is no need for a separate instrument of ratification for the latter. The 1973 MARPOL Convention and the 1978 MARPOL Protocol should therefore be read as one instrument, which is usually referred to as MARPOL 73/78.

Implementation in Canadian law

Entering into force in Canada on 16 February 1993, the lead department implementing the Convention is Transport Canada. Other interested departments include: Canadian International Development Agency, Environment Canada, Foreign Affairs Canada, and Indian Affairs and Northern Development. Canada is not party to Annexes IV and V and the 1997 Protocol.

4.3.5.11 International Convention for the Safety of Life at Sea (SOLAS Convention)

Citation: International Convention for the Safety of Life at Sea, 1974, (SOLAS Convention), 1 November 1974, 1184 U.N.T.S. 2, reprinted in 14 I.L.M. 963, entered into force: 25 May 1980.

The International Convention for the Safety of Life at Sea (SOLAS Convention) is a complex instrument that has evolved into its present form over many decades, becoming increasingly more important to merchant ship safety than any other international instrument. The 1974 version of SOLAS incorporated all of the amendments that had been made up to that time. However, it also introduced the 'tacit approval' system of amendment that would allow for future changes to be made effectively and rapidly. The main objective of SOLAS is to specify minimum standards for the construction, equipment and operation of ships compatible with safety. Flag states are required to issue certain certificates as prescribed in the Convention as proof that their ships comply with SOLAS standards. State Parties to SOLAS may also inspect the ships of other Parties if there are clear grounds for suspecting that such ships or their equipment do not comply with the requirements of the Convention.

The SOLAS Convention is also a major concern for port state control implementation, and requires an extensive and well trained administration to deal with the inspection of the numerous flag vessels servicing Canada's overseas trade.

Implementation in Canadian law

Canada signed the 1974 SOLAS Convention, but has not signed the 1978 and 1988 Protocols. Transport Canada is responsible for its implementation under the *Canada Shipping Act* and Regulations.

4.3.5.12 International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW)

Citation: International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, 7 July 1978, 1361 U.N.T.S. 2, entered into force: 28 February 1984; and the 1995 amendments to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978, in Conference and Seafarer's Training, Certification and Watchkeeping Code (STCW Code) including resolution 2 of the 1995 STCW Conference (London: IMO, 1996), entered into force on 1 February 1997.

The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW) is the first to establish basic requirements on training, certification and watchkeeping for seafarers on an international level. Parties undertake to give effect to necessary laws, orders and regulations in ensuring that safety of life and property at sea, and protection of the marine environment are maintained and that seafarers on board ships are qualified and fit for their duties.

In 1978, IMO adopted the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), which established internationally recognized minimum standards for seafarers.

The STCW establishes standards for the deck department, engine department and radio department and deals with all members of the ship's complement. In each case the STCW prescribes minimum age levels, minimum periods of sea-going service and certification requirements. Navigation and related subjects form an important part of the knowledge required of masters and deck officers. Minimum standards of competence for masters and chief mates include:

- thorough knowledge of content, application and intent of the International Regulations for Preventing Collisions at Sea;
- through knowledge of the content, application and intent of the Principles to be Observed in Keeping a Navigational Watch; and
- effective bridge teamwork procedures.

The Convention was considerably revised in 1995, when IMO adopted a new STCW Code, to which many technical regulations of the original STCW Convention have been transferred. The revised STCW entered into force on 1 February 1997.

Part A of the Code is mandatory while Part B is recommended. Dividing the regulations up in this way makes administration easier and it also makes the task of revising and updating them more simple: for procedural and legal reasons there is no need to call a full conference to make changes to Codes.

Some of the most important amendments adopted by the conference concern Chapter 1 (General Provisions). They include the following:

Parties to the Convention are required to provide detailed information to IMO concerning administrative measures taken to ensure compliance with the Convention.

This regulation is regarded as particularly important because it means that Governments will have to establish that they have the administrative, training and certification resources necessary to implement the Convention. This information will be used by the Maritime Safety Committee (MSC), IMO's senior technical body, to identify Parties that are able to demonstrate that they can give full and complete effect to the Convention.

No such proof was required in the original Convention, leading to complaints that standards differed widely from country to country and certificates could therefore not always be relied on. Further regulations dealing with this aspect are contained in the mandatory Part A of the STCW Code.

Enhanced procedures concerning the exercise of port state control have been developed to allow intervention in the case of deficiencies deemed to pose a danger to persons, property or the environment. Measures have been introduced for watchkeeping personnel to prevent fatigue.

Implementation in Canadian law

The major implication for Canada is in the area of Port State Control. Canada signed the 1978 STCW Convention, but has not signed the 1995 STCW-F Convention for fishing vessel personnel. Transport Canada is responsible for its implementation under the *Canada Shipping Act* and Regulations.

4.3.5.13 Convention on Maritime Search and Rescue, 1979 (SAR Convention)

Citation: Convention on Maritime Search and Rescue, 1979, (SAR Convention), 27 April 1979, 1405 U.N.T.S. 97, entered into force: 22 June 1985.

The purpose of the Convention on Maritime Search and Rescue (SAR Convention) is to facilitate co-operation between governments and between those participating in search and rescue (SAR) operations at sea by establishing an international SAR plan. Co-operation of this type is encouraged by SOLAS 1974 (section 4.3.5.11), Parties to which undertake to ensure that any necessary arrangements are made for coast watching and for the rescue of persons in distress off its coasts. These arrangements should include the establishment, operation and maintenance of such maritime safety facilities as are deemed practicable and necessary. Parties to the Convention are required to ensure that arrangements are made for the provision of adequate SAR services in their coastal waters.

Parties are encouraged to enter into SAR agreements with neighbouring states involving the establishment of SAR regions, the pooling of facilities, establishment of common procedures, training and liaison visits. The Convention states that Parties should take measures to expedite entry into its territorial waters of rescue units from other Parties. The Convention then goes on to establish preparatory measures which should be taken, including the establishment of rescue co-ordination centres and sub-centres. It outlines operating procedures to be followed in the event of emergencies or alerts and during SAR operations. This includes the designation of an on-scene commander and his duties. Parties to the Convention are required to establish ship reporting systems, under which ships report their position to a coast radio station. This enables the interval between the loss of contact with a vessel and the initiation of search operations to be reduced. It also helps to permit the rapid determination of vessels that may be called upon to provide assistance, including medical help when required.

Implementation in Canadian law

The International Convention on Maritime Search and Rescue, 1979, as amended, is the responsibility of the Minister of Fisheries and Oceans as it relates to search and rescue and of the Minister of Transport as it relates to ships. Both Ministers have listed the Convention in their annex of the *Canada Shipping Act* 2001 as their responsibilities. The agency responsible for providing SAR services in Atlantic Canada is the Joint Rescue Coordination Centre (RCC) in Halifax. Canada has signed the 1979 SAR Convention.

4.3.5.14 Paris Memorandum of Understanding on Port State Control

Citation: Paris Memorandum of Understanding on Port State Control, 26 January 1982, online at: <http://www.parismou.org> (date accessed: 6 August 2002), entered into force: 1 July 1982.

The Paris Memorandum of Understanding on Port State Control (Paris MOU) is a regional initiative aimed at improving the level of ship safety by enforcing compliance with international standards. The Paris MOU provides that each authority will establish and maintain an effective system of port state control with a view to ensuring that, without discrimination, foreign merchant ships visiting its ports comply with the standards laid down in the relevant instruments.

Maritime authorities are enjoined to board ships in port in order to check certificates and documents. In the absence of valid certificates or documents, or if there are "clear grounds" for suspecting that some aspect of the ship does not meet international standards, a more detailed inspection will be conducted (Section 3.1). The Memorandum provides guidelines on what constitutes "clear grounds" warranting further inspection of a ship (Section 3.2). The Memorandum identifies an annual inspection rate target of 50 percent of the total number of ships operating in the region by 2000 (Section 1.4).

Certain ships are identified as requiring special attention, including passenger ships, roll-on/roll-off ships, bulk carriers, ships which may present a special hazard, and ships which have featured in recent inspections as having deficiencies or which have not been inspected within the previous six months. Authorities are required to endeavour to secure rectification of identified deficiencies before the ship proceeds to sea, and where a deficiency is "clearly hazardous to safety, health or the environment" to ensure that it is rectified unless the ship needs to travel to another port for remedy and can do so safely. If necessary, an authority can detain a ship. Authorities are required to report the results of inspections in accordance with the Memorandum, and to exchange information with other authorities. The authorities are also enjoined to endeavour to establish training programs and seminars for surveyors.

Implementation in Canadian law

Canada is a member state of the Paris MOU. Transport Canada's Marine Safety and Environmental Programs Division is the functional agency for the Paris MOU.

4.3.5.15 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention)

Citation: Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention), 22 March 1989, UN Doc. UNEP/WG.190/4, reprinted in 28 I.L.M. 649, <http://www.basel.int/text/text.html>, entered into force: 2 May 1992; and Amendment to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal of March 22, 1989, 22 September 1995, not yet in force.

The Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal is a global instrument intended to minimize and control international trade in transboundary waste. "Waste" is considered "substances or objects which are disposed of or are intended to be disposed of or are required to be disposed of by the provisions of national law" (Article 2(1)).

Hazardous wastes are those that belong to the categories listed in Annex I to the Convention, or those that are considered as hazardous by the domestic legislation of either the Party of export, import or transit (Article 1(1)). The Convention places a shared responsibility on exporting and importing states for environmentally sound management and disposal of such wastes. The term "environmentally sound management" is defined to mean "taking all practicable steps to ensure that hazardous wastes or other wastes are managed in a manner which will protect human health and the environment against the adverse effects which may result from such wastes" (Article 2(8)).

Implementation in Canadian law

Signed by Canada on 22 March 1989, the Convention entered into force on 26 November 1992. The lead department implementing the Convention is Environment Canada under regulations of the *Canadian Environmental Protection Act* (CEPA).[226] Other interested departments include: Agriculture and Agri-Food Canada, Canadian International Development Agency, Fisheries and Oceans Canada, Foreign Affairs Canada, Health Canada, Industry Canada, Natural Resources Canada, Canada Customs and Revenue Agency and Transport Canada.

4.3.5.16 International Convention on Salvage

Citation: International Convention on Salvage, 1989, 28 April 1989, B.T.S. 93(1996), entered into force: 14 July 1996.

The International Convention on Salvage incorporates the "no cure, no pay" principle which has been in existence for many years and is the basis of most salvage operations today. However, it does not take compensation into account. The new Convention seeks to remedy this by making provisions for "special compensation" to be paid to salvors when there is a threat to the environment. This will consist of the salvor's expenses plus 30 percent if environmental damage is minimized or prevented, but this can be increased to 100 percent in certain circumstances.

Implementation in Canadian law

Canada is party to the 1989 Salvage Convention. Transport Canada is responsible for its implementation under Schedule V of the *Canada Shipping Act*.

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[226] For example, CEPA regulations include the *Export and Import of Hazardous Waste Regulations* and the *PCB Waste Export Regulations*.

4.3.5.17 International Convention on Oil Pollution Preparedness, Response and Cooperation

Citation: International Convention on Oil Pollution Preparedness, Response and Cooperation, 1990, 30 November 1990, B.P.P. Misc. 38(1994), entered into force: 13 May 1995.

The purpose of the International Convention on Oil Pollution Preparedness, Response and Cooperation (OPPRC) is to provide a global framework for international co-operation in combating major incidents or threats of marine pollution. Parties to the Convention will be required to establish measures for dealing with pollution incidents, either nationally or in co-operation with other countries.

Ships are required to carry a shipboard oil pollution emergency plan, the contents of which are to be developed by IMO. Operators of offshore units under the jurisdiction of Parties are also required to have oil pollution emergency plans or similar arrangements which must be co-ordinated with national systems for responding promptly and effectively to oil pollution incidents. Ships are required to report incidents of pollution to coastal authorities and the convention details the actions that are then to be taken. The Convention calls for the establishment of stockpiles of oil spill combating equipment, the holding of oil spill combating exercises and the development of detailed plans for dealing with pollution incidents. Parties to the Convention are required to provide assistance to others in the event of a pollution emergency and provision is made for the reimbursement of any assistance provided.

Implementation in Canadian law

Signed by Canada on 30 November 1990 and entering into force on 13 May 1995, the lead departments implementing the OPPR Convention are Fisheries and Oceans Canada and Transport Canada (see MOU signed by DFO/TC). Other interested departments include Environment Canada and Indian Affairs and Northern Development. Canada has in place the Coast Guard's Marine Spills Contingency Plan (1998) in response to ship-source spills, mystery spills, and ship-source pollution incidents.

4.3.5.18 International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea (HNS) 1996

Citation: International Convention on Liability and Compensation for Damage In Connection with the Carriage of Hazardous and Noxious Substances by Sea (HNS) 1996, not yet in force; Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances (OPPRC-HNS Protocol), 15 March 2000, not yet in force.

The International Convention on Liability and Compensation for Damage In Connection with the Carriage of Hazardous and Noxious Substances (HNS) by Sea, 1996 will make it possible for up to £250 million (US$400 million) to be paid in compensation to victims of accidents involving HNS, such as chemicals. The HNS Convention is based on the two-tier system established under the CLC and Fund Conventions (see above). However, it goes further in that it covers not only pollution but also the risks of fire and explosion. HNS are defined as substances included in various IMO Conventions and Codes. The Convention defines damage as including loss of life or personal injury; loss of or damage to property outside the ship; loss or damage by contamination of the environment; the costs of preventive measures and further loss or damage caused by them.

The Convention introduces strict liability for the shipowner, higher limits of liability than the present general limitation regimes and a system of compulsory insurance and insurance certificates. States which are Parties to the Convention can decide not to apply it to ships of less than or equal to 200 gross tonnage, which carry HNS only in packaged form and are engaged on voyages between ports in the same state. Two neighbouring states can further agree to apply similar conditions to ships operating between ports in the two countries.

In order to ensure that shipowners engaged in the transport of HNS are able to meet their liabilities, the Convention makes insurance compulsory for them. A certificate of insurance must be carried on board and a copy kept by the authorities who keep record of the ship's registry. It has generally been agreed that it would not be possible to provide sufficient cover by the shipowner liability alone for the damage that could be caused in connection with the carriage of HNS cargo. This liability, which creates a first tier of the convention, is therefore supplemented by a second tier, the HNS Fund, financed by cargo interests.

The Fund will become involved:

(i) because no liability for the damage arises for the shipowner (e.g., if the shipowner was not informed that a shipment contained HNS or if the accident resulted from an act of war.);
(ii) because the owner is financially incapable of meeting the obligations under this Convention in full and any financial security that may be provided under chapter II does not cover or is insufficient to satisfy the claims for compensation for damage; and
(iii) because the damage exceeds the owner's liability under the terms of chapter II.

Contributions to the second tier will be levied on persons in the Contracting Parties who receive a certain minimum quantity of HNS cargo during a calendar year. The tier will consist of one general account and three separate accounts for oil, liquefied natural gas (LNG) and liquefied petroleum gas (LPG). The system with separate accounts has been seen as a way to avoid cross-subsidization between different HNS substances. The maximum compensation available under the first tier is 100,000 Special Drawing Rights (SDRs)[227] of the IMF (for ships exceeding 100,000 gt.). Once these limits are reached, compensation would be paid from the second tier, the HNS Fund, up to a maximum of 250 million SDRs (including compensation paid under the first tier).

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[227] The SDR is not a currency, but is potentially a claim on the freely usable currencies of International Monetary Fund members, as holders of SDRs can exchange their SDRs for these currencies.

The Protocol on Preparedness, Response and Co-operation to pollution Incidents by Hazardous and Noxious Substances, 2000 (OPPRC-HNS Protocol) follows the principles of the International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990.

Like the OPPRC Convention, Parties to the HNS Protocol will be required to establish measures for dealing with pollution incidents, either nationally or in co-operation with other countries. Ships will be required to carry a shipboard pollution emergency plan to deal specifically with incidents involving HNS.

HNS are defined by reference to lists of substances included in various IMO Conventions and Codes. These include

- oils;
- other liquid substances defined as noxious or dangerous;
- liquefied gases;
- liquid substances with a flashpoint not exceeding 60°C;
- dangerous, hazardous and harmful materials and substances carried in packaged form; and
- solid bulk materials defined as possessing chemical hazards.

The HNS Protocol was formally adopted by States already Party to the Convention and will enter into force twelve months after ratification by not less than fifteen States which are Party to the Convention. When the HNS Protocol comes into force, it will ensure that ships carrying hazardous and noxious liquid substances are covered, or will be covered, by regimes similar to those already in existence for oil incidents.

Implementation in Canadian law

Canada signed the 1996 HNS Convention in September 1997 and is subject to ultimate ratification. Domestic legislation will follow ratification. The HNS Convention can only come into force for Canada when there are sufficient ratifications worldwide to make the system viable. This exercise requires international coordination, which is well under way through the auspices of the Legal Committee of the IMO.

4.3.5.19 Guidelines for the Control and Management of Ships' Ballast Water to Minimize the Transfer of Harmful Aquatic Organisms and Pathogens

Citation: Guidelines for the Control and Management of Ships' Ballast Water to Minimize the Transfer of Harmful Aquatic Organisms and Pathogens, 27 November 1997, online at: <http://globallast.imo.org/868%20english.pdf> (date accessed: 6 August 2002).

The Guidelines for the Control and Management of Ships' Ballast Water to Minimize the Transfer of Harmful Aquatic Organisms and Pathogens help to minimize the risks associated with ballast water discharge. As scientific and technological advances are made, the Guidelines will be refined to enable the risk to be more adequately addressed. In the interim, port States, flag States and other parties that can assist in mitigating this problem should exercise due care and diligence in an effort to conform to the maximum extent possible with the Guidelines.

The objectives of these Guidelines, developed under technical and scientific guidance, are to assist Governments and appropriate authorities, ship masters, operators and owners, and port authorities, as well as other interested parties, in minimizing the risk of introducing harmful aquatic organisms and pathogens from ships' ballast water and associated sediments while protecting ships' safety.

The Guidelines allow port States to exempt ships within the area under their jurisdiction from part or all of the relevant provisions. Notwithstanding, any administration wishing to apply restrictions to ballast water operations are encouraged to follow these Guidelines, when developing legislation or procedures (section 4.2).

Implementation in Canadian law

Canadian guidelines exist in a September 2000 report from Transport Canada, which is the responsible agency. Canadian Guidelines are similar to the International Maritime Organization's guidelines based on regional implementation.

4.3.5.20 Agreement between the Government of Canada and the Government of the United States of America concerning the Transboundary Movement of Hazardous Waste

Citation: Agreement between the Government of Canada and the Government of the United States of America concerning the Transboundary Movement of Hazardous Waste, signed 28 October 1986, CTS 1986/39.

On 8 November 1986, an agreement between the Government of Canada and the Government of the United States of America concerning the transboundary movement of hazardous waste entered into force and ever since it was renewed every five years (Article 13). The Agreement is to ensure that the treatment, storage, and disposal of hazardous waste are conducted so as to reduce the risks to public health, property, and environmental quality, and to facilitate the control of transboundary shipments of hazardous waste between the United States and Canada. An amendment adopted in 1992 expanded the ambit of the Agreement to cover hazardous and "other waste", namely municipal solid waste sent for final disposal or for incineration with energy recovery and resulting incineration residues. The Parties have agreed to permit the export, import and transit of hazardous waste across their common border for treatment, storage or disposal pursuant to the terms of their domestic laws and the provisions of the Agreement (Article 2) and will cooperate to ensure that all transboundary shipments of hazardous waste comply with the manifest requirements of both countries and of the Agreement (Article 5).

Implementation in Canadian law

The lead department for implementation is Environment Canada under the *Canadian Environmental Protection Act.*

4.3.5.21 Decision of the Council of the Organisation for Economic Co-operation and Development concerning the control of transfrontier movements of wastes destined for recovery operations, adopted 30 March 1992.

This Decision provides for a simplified means to control the transboundary movements of wastes destined for recovery/recycling operations that are environmentally sound within the OECD area, and is reflected in the Canadian *Export and Import of Hazardous Wastes Regulations*. The three-tier system (green, amber, and red) was established based on the overall risk to the environment and human health, and sets out the controls to be applied to such transfrontier movements. The purpose of the three-tier system is to place a given hazardous waste into one of three categories, based on the overall risks and the intrinsic properties of the waste itself, in combination with the way that such material is commonly handled in trade or commerce. Once the waste has been categorized, it is subject to the controls appropriate to that category. The controls established for the three tiers are based on an increasing scale of hazard from green (negligible risk) to red (high risk), with a respective increase in the level of controls placed on those wastes.

Under the draft *Export and Import of Hazardous Waste Regulations*, the OECD Decision indicated above is broken down into two, as such:

1. Decision C(2001)107/FINAL of the Organization for Economic Cooperation and Development (OECD), *Decision of the Council Concerning the Revision of Decision C(92)39/FINAL on the Control of Transboundary Movements of Wastes Destined for Recovery Operations,* dated May 21, 2002, (http://www.olis.oecd.org/olis/2001doc.nsf/linkto/c(2001)107-final).

2. Decision C(88)90/Final of the Organization for Economic Cooperation and Development (OECD), *Decision of the Council on Transfrontier Movements of Hazardous Wastes* dated May 27, 1988, as amended by Decision C(94)152/Final, *Decision of the Council Amending the Decision on Transfrontier Movements of Hazardous Wastes*, dated July 28, 1994, (http://www.olis.oecd.org/olis/1994doc.nsf/linkto/c(94)152-final).

4.3.5.22 Convention on Control of Harmful Anti-fouling Systems on Ships

Citation: Convention on Control of Harmful Anti-fouling Systems on Ships, adopted on 5 October 2001.

The Convention proposes to ensure a global prohibition of the application or re-application of organotin compounds which act as biocides in anti-fouling systems on ships as of January 1, 2003. After January 1, 2008, organotin compounds on ships must either be removed or sealed. The Convention also establishes procedures for implementing controls for any other harmful systems that are identified in the future.

Implementation in Canadian law

Health Canada regulates the sale and use of products such as organotin paints. There are only 3 tin paint products registered for use in Canada. The term of registration is for one year, and is reviewed annually. Preliminary written plans to voluntarily phase out these products have been provided to the Pest Management Regulatory Agency (PMRA). The PMRA Special Review Announcement (SRA) indicates that all registrations/use will cease effective December 31, 2002 (http://www.hc-sc.gc.ca/pmra-arla/english/pdf/sra/sra2000-01-e.pdf).

4.3.6 Maritime Defence

4.3.6.1 Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation

Citation: Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation, 10 March 1988, CTS 1993/10, reprinted in 27 I.L.M. 668, entered into force: 1 March 1992; and Protocol for the Suppression of Unlawful Acts Against the Safety of Fixed Platforms Located on the Continental Shelf, 10 March 1988, CTS 1993/9, reprinted in 27 I.L.M. 685, entered into force: 1 March 1992.

The Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation is intended to ensure that appropriate action is taken against persons committing unlawful acts against ships. These include:

- the seizure of ships by force;
- acts of violence against persons on board ships; and
- the placing of devices on board a ship which are likely to destroy or damage it.

The Convention obliges contracting governments either to extradite or prosecute alleged offenders.

The Protocol for the Suppression of Unlawful Acts Against the Safety of Fixed Platforms Located on the Continental Shelf extends the requirements of the Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation to fixed platforms such as those exploiting offshore oil and gas.

Implementation in Canadian law

Canada is a party to this Convention and the 1988 Protocol, which was implemented by an amendment to the *Criminal Code* S. 78.1.

4.3.6.2 United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances,

Citation: United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, 20 December 1988, CTS 1990/42, reprinted in 28 I.L.M. 493, entered into force: 11 November 1990.

The United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances is a binding international instrument to promote co-operation among State Parties to address suppression of illicit traffic in narcotic drugs and psychotropic substances having an international dimension.

Article 17 of the Convention prescribes specific provisions relating to "Illicit Traffic by Sea" where State Parties are urged to co-operate in the suppression of illicit traffic by sea in conformity with international law of the sea. Parties may seek assistance from each other for the suppression of vessels engaging in illicit traffic. In particular, a Party may take appropriate measures against a vessel exercising freedom of navigation in accordance with international law suspected to be engaged in illicit traffic upon confirmation of authorization given by the flag state of the vessel (Article 17.3). The inspecting Party may then board, search and take appropriate action with respect to the detained vessel, persons and cargo on board. Article 17 of the Convention deals with international co-operation aimed at the interdiction of illicit narcotics traffic by sea. The Article reflects existing international law in that it allows a Party to consent to vessels flying its flag being intercepted by another state on the high seas where such vessels are suspected of being involved in illicit narcotics traffic.

Implementation in Canadian law

Canada is a party to this convention. This matter is covered by anti-narcotic legislation for ships within Canada including territorial waters, offshore installations and Canadian flag shipping. Canada cooperates bilaterally with several states in this area.

4.3.6.3 Agreement on Illicit Traffic by Sea, Implementing Article 17 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances

Citation: Agreement on Illicit Traffic by Sea, Implementing Article 17 of the United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of December 20, 1988, 31 January 1995, E.T.S. 156, entered into force 1 May 2000.

The Agreement on Illicit Traffic by Sea, Implementing Article 17 of the United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances is a treaty of the Council of Europe to assist in suppressing drug smuggling by sea. It requires European states to implement the necessary control measures to enforce anti-drug smuggling provisions on their flag ships. States can ask for the assistance of other states in taking action on their flag shipping at sea. States can stop and board another member states vessel after asking for authorization.

Implementation in Canadian law

The treaty allows non-European Union states to accede to the treaty. Canada is not a member. Canadian membership in this treaty would prove useful in conjunction with Canada's membership in the Paris MOU for port state control.

4.3.6.4 International Ship and Port Facility Security Code (ISPS Code), adopted by a IMO Conference of Contracting Governments to the International Convention for the Safety of Life at Sea, 1974, London 9-13 December 2002.

The Code aims, among other things, to establish an international framework for co-operation between Contracting Governments, Government agencies, local administrations and the shipping and port industries to detect security threats and take preventive measures against security incidents affecting ships or port facilities used in international trade and to establish relevant roles and responsibilities at the national and international level. These objectives are to be achieved by the designation of appropriate personnel on each ship, in each port facility and in each ship owning company to make assessments and to put into effect the security plans that will be approved for each ship and port facility.

The Conference also adopted several related resolutions and amendments to chapters V and XI (now divided into chapters XI-1 and XI-2) of the 1974 SOLAS Convention, as amended. Under the new chapter XI-2, which provides the umbrella regulations, the ISPS Code will become mandatory on 1 July 2004. The Code is divided into two parts. Part A presents mandatory requirements, and part B recommendatory guidance regarding the provisions of chapter XI-2 of the Convention and part A of the Code.

Implementation in Canadian law

Transport Canada is responsible for implementation of the ISPS Code.

4.3.7 Oil and Gas

4.3.7.1 Guidelines and Standards for the Removal of Offshore Installations and Structures on the Continental Shelf and in the Exclusive Economic Zone

Citation: Guidelines and Standards for the Removal of Offshore Installations and Structures on the Continental Shelf and in the Exclusive Economic Zone, Resolution 11/8/2 of the Eleventh Consultative Meeting of the London Convention 1972.

The Guidelines and standards for the removal of offshore installations and structures on the Continental Shelf and in the Exclusive Economic Zone require that abandoned or disused offshore installations or structures in the EEZ or on the continental shelf be removed unless they can be left or partially removed in a manner consistent with these guidelines and standards. Coastal states have the responsibility to ensure that installations which are no longer in use are either removed or partially removed as soon as reasonably practicable.

A decision to allow all or part of an offshore structure to remain on the seabed will be made on a case-by-case basis, and will consider:

- navigational safety and other sea uses;
- the rate of deterioration of the material and its possible future effect on the marine environment;
- the environmental risk, including that posed to living resources;
- the risk of the structure moving;
- the costs, technical feasibility and risks of injury to personnel of removing the structure; and
- determination of a new use or other reasonable justification for allowing the structure to remain.

The risks to navigation should consider:

- the number, type and draught of vessels using the area;
- the cargoes they carry;
- the tide, current, hydrographic conditions and potentially extreme climatic conditions;
- the proximity to sea lanes and port access routes;
- the aids to navigation in the vicinity;
- the location of commercial fishing areas;
- the width of the navigable fairway; and
- whether the area is near or in a strait or archipelagic navigation route.

The potential effects on the marine environment must be based upon scientific evidence. The process of allowing a structure to remain on the seabed will include specifying conditions, providing for monitoring and updating charts.

Implementation in Canadian law

These guidelines were issued under the London Convention 1972 (discussed in section 4.3.3.3) to which Canada is a Party. There are requirements in the guidelines that came into effect in 1998, including requirements for complete removal out to a depth of 100 metres, and the need for structures to be designed with removal in mind.

4.3.7.2 1982 UNEP Guidelines Concerning the Environment Related to Offshore Mining and Drilling Within the Limits of National Jurisdiction

Citation: 1982 UNEP Guidelines Concerning the Environment Related to Offshore Mining and Drilling Within the Limits of National Jurisdiction.

The 1982 UNEP Guidelines Concerning the Environment Related to Offshore Mining and Drilling within the Limits of National Jurisdiction are the closest to a global body of laws, providing opportunities for the setting of international standards for the protection of the marine environment from pollution from offshore oil and gas activities. They do not require states to provide signatures or ratifications to indicate consent to the obligations. The guidelines on include:

- recommendations for protected areas;
- authorization systems for safety and environmental protection requirements;
- environmental impact assessments;
- national monitoring systems for seabed activities, information and consultation processes;
- safety measures;
- national contingency plans; and
- liability and compensation regimes.

The Guidelines are not legally binding and provide recommendations for states.

Implementation in Canadian law

The CNSOPB administers its own environmental regulations relating to environmental standards for offshore operators, including the *Nova Scotia Offshore Petroleum Drilling Regulations, Compensation Guidelines Respecting Damage Relating to Offshore Petroleum Activity, Offshore Waste Treatment Guidelines,* and the *Nova Scotia Petroleum Production and Conservation Regulations*, all under the *Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act*. As a federal authority, the CNSOPB also administers regulations pursuant to the *Canadian Environmental Assessment Act*. Natural Resources Canada has the mandate to develop an appropriate offshore minerals regime south of 60° N. The offshore boards have no role to play as far as offshore mining is concerned. Natural Resources Canada and Fisheries and Oceans Canada would be the lead agencies on environmental protection measures with respect to potential offshore mining.

4.3.7.3 IMO Code for the Construction and Equipment of Mobile Offshore Drilling Units

Citation: IMO Code for the Construction and Equipment of Mobile Offshore Drilling Units, 1989.

The IMO Code for the Construction and Equipment of Mobile Offshore Drilling Units focuses on construction, stability, equipment, and safety factors. The Code is not legally binding and provides recommendations for states.

Implementation in Canadian law

The CNSOPB and Transport Canada have the primary administrative role regarding offshore drilling units.

4.3.8 Recreation, Culture and Tourism

4.3.8.1 Convention for the Protection of the World Cultural and Natural Heritage

Citation: Convention for the Protection of the World Cultural and Natural Heritage, 23 November 1972, 1037 U.N.T.S. 151, entered into force: 17 December 1975.

The Convention for the Protection of the World Cultural and Natural Heritage establishes a scientific system for permanent protection of cultural and natural heritage of outstanding universal value. The Convention recognises two categories of world heritage: cultural and natural. Natural heritage encompasses physical and biological formations of outstanding universal value for aesthetic or scientific reasons; geological and physiographical formations and the habitat of threatened species of animals and plants of outstanding value for scientific or conservation reasons; and natural sites of outstanding universal value from the point of view of science, conservation or natural beauty (Article 2). The Convention also recognises that "such heritage constitutes a world heritage for whose protection it is the duty of the international community as a whole to co-operate" (Article 6).

State Parties are required to identify, delineate, protect, conserve, and present these different sites, and to transmit them to future generations (Article 4). The Convention provides that Parties shall endeavour to develop scientific and technical studies on how to protect the sites, and take appropriate legal, scientific, technical, administrative and financial measures to meet their obligations with regard to the sites (Article 5). The Convention provides for the establishment within the United Nations Educational, Scientific and Cultural Organization (UNESCO) of an Intergovernmental Committee for the Protection of the Cultural and Natural Heritage of Outstanding Value, called 'the World Heritage Committee' (Article 8). Every State Party to the Convention is required to submit an inventory of property forming the cultural and natural heritage to the World Heritage Committee, and the World Heritage Committee will use these inventories to establish, keep up to date and publish a 'World Heritage List' of the properties it considers as having outstanding heritage value (Article 11).

Implementation in Canadian law

Signed by Canada on 23 November 1972 and entered into force on 23 October 1976, the lead department for this Convention is the Department of Canadian Heritage. Other interested departments include: Agriculture and Agri-Food Canada, Fisheries and Oceans Canada, Foreign Affairs Canada, and Indian Affairs and Northern Development.

Canada has not designated any marine cultural World Heritage Sites of relevance to Canada's ocean policy. The designation of Sable Island as a World Heritage Site of outstanding natural beauty within a unique surrounding marine ecosystem would promote public awareness of marine conservation issues in Canada.

4.3.8.2 Buenos Aires Draft Convention on the Protection of the Underwater Cultural Heritage

Citation: Buenos Aires Draft Convention on the Protection of the Underwater Cultural Heritage, August 1994, not yet in force.

The Buenos Aires Draft Convention on the Protection of the Underwater Cultural Heritage is intended to provide basic protection beyond the territorial seas of coastal states for very sensitive and precious heritage that are subject to threats of damage, and also resolve jurisdictional issues involving underwater cultural heritage. Cultural Heritage Zones can be established to co-extend with the continental shelf and the scope is limited to underwater cultural heritage that has been lost and submerged for at least 100 years. The Convention excludes the law of salvage from its scope.

Implementation in Canadian law

Canadian Heritage is engaged in the protection of underwater heritage.

4.3.8.3 The UNESCO Draft Convention for the Protection of Underwater Cultural Heritage

Citation: UNESCO Draft Convention for the Protection of Underwater Cultural Heritage, 1998, adopted 2 November 2001, available online: <http://www.unesco.org/culture/laws/underwater/html_eng/convention.shtml>, not yet in force.

The UNESCO Draft Convention for the Protection of Underwater Cultural Heritage is led by UNESCO and the United Nations Department of Ocean Affairs and Law of the Sea (DOALOS) and concerns the rights to be exercised by coastal states in relation to the underwater cultural heritage when it is in the territorial sea, in the EEZ, or on the continental shelf.

Implementation in Canadian law

Canadian Heritage is engaged in the protection of underwater heritage.

Table 4-1 Key International Legal Instruments by Sector

1. Communications and Submarine Cables

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
Convention for the Protection of Submarine Cables, 163 Parry 391	14 March 1884	1 May 1888	No existing provisions.	Industry Canada	Breaking a submarine cable through negligence is a punishable offence, but the punishment is no bar to civil action for damages.
Convention on the International Maritime Satellite Organization and Operating Agreement on the International Maritime Satellite Organization (INMARSAT), 1143 U.N.T.S. 105 and 213	3 September 1976	16 July 1979	Implemented through shipping-related legislation.	Industry Canada	INMARSAT was created to help the international shipping community avoid collisions and other mishaps at sea by providing satellite-based navigational aid.
United Nations Convention on the Law of the Sea (LOSC), UN Doc. A/CONF. 62/122, reprinted in (1982) 21 I.L.M. 1261	10 December 1982	16 November 1994	Canada ratified the LOSC in November 2003.	Industry Canada	A comprehensive regime of law and order in the world's oceans and seas establishing rules governing all uses of the oceans and their resources.
Constitution of the International Telecommunications Union and Convention of the International Telecommunications Union, (1996) B.T.S. 24	22 December 1992	1 July 1992	*Radiocommunication Act*, *Telecommunications Act*	Industry Canada	A framework agreement on international interconnection operating instructions and tariff rules.

2. Fisheries

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
International Convention for the Regulation of Whaling, 161 U.N.T.S. 72	2 December 1946	10 November 1948	In 1982 Canada ceased membership in the IWC	Fisheries & Oceans	Identifies conservation objectives on the one hand and an orderly development of the whaling industry on the other hand. The regulations governing the protection and exploitation of whales are contained in a schedule to the Convention.

2. Fisheries (continued)

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
Protocol to the International Convention for the Regulation of Whaling of December 2, 1946, 338 U.N.T.S. 366,	19 November 1956	4 May 1959	Canada signed the Protocol, but ceased membership in the IWC.	Fisheries & Oceans	Extends application of the Convention to helicopters and other aircraft and to include provisions on methods of inspection.
Convention on Fishing and Conservation of Living Resources of the High Seas, 559 U.N.T.S. 285	29 April 1958	20 March 1966	Canada has signed but not ratified.	Fisheries & Oceans	Gives states the right to engage in fishing on the high seas subject to treaty obligations.
International Convention for the Conservation of Atlantic Tunas, 673 U.N.T.S. 63	14 May 1966	21 March 1969	Canada manages stocks under ICCAT jurisdiction.	Fisheries & Oceans	To maintain the populations of the Atlantic tunas and tuna-like fish at levels that will permit the maximum sustainable catch for food and other purposes.
Agreement on Sealing and the Conservation of Seal Stocks in the Northwest Atlantic and Exchange of Notes amending the Agreement of 15 July 1971 on Sealing and the Conservation of Seal Stocks in the Northwest Atlantic	15 July 1971 9 December 1975 (Exchange)	22 December 1971 12 December 1975 (Exchange)	Implementation via DFO IFMP Seal Management Plan and Marine Mammal Regulations.	Fisheries & Oceans	Calls for the establishment of international cooperation for the purpose of achieving optimum productivity of seal stocks in order to attain population levels capable of ensuring the maximum sustained catch.
The Torremolinos International Convention for the Safety of Fishing Vessels, 2 April 1977, BPP Misc. 17(1978)	1 October 1977	Not yet in force.	Still to be implemented.	Fisheries & Oceans/ Transport Canada	Convention on the safety of fishing vessels.
Torremolinos Protocol relating to the Torremolinos International Convention for the Safety of Fishing Vessels of April 2, 1977	2 April 1993 open for signature: 1 July 1993 - 30 June 1994	Not yet in force.	Still to be implemented.	Fisheries & Oceans/ Transport Canada	Eliminates provisions in the Convention that caused states difficulty and thereby enabling entry into force.

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Constitution of the International Telecommunications Union and Convention of the International Telecommunications Union, (1996) B.T.S. 24	22 December 1992	1 July 1992	*Radiocommunication Act*, *Telecommunications Act*	Industry Canada	A framework agreement on international interconnection operating instructions and tariff rules.

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International Convention for the Conservation of Atlantic Tunas, 673 U.N.T.S. 63	14 May 1966	21 March 1969	Canada manages stocks under ICCAT jurisdiction.	Fisheries & Oceans	To maintain the populations of the Atlantic tunas and tuna-like fish at levels that will permit the maximum sustainable catch for food and other purposes.
Agreement on Sealing and the Conservation of Seal Stocks in the Northwest Atlantic and Exchange of Notes amending the Agreement of 15 July 1971 on Sealing and the Conservation of Seal Stocks in the Northwest Atlantic	15 July 1971 9 December 1975 (Exchange)	22 December 1971 12 December 1975 (Exchange)	Implementation via DFO IFMP Seal Management Plan and Marine Mammal Regulations.	Fisheries & Oceans	Calls for the establishment of international cooperation for the purpose of achieving optimum productivity of seal stocks in order to attain population levels capable of ensuring the maximum sustained catch.
The Torremolinos International Convention for the Safety of Fishing Vessels, 2 April 1977, BPP Misc. 17(1978)	1 October 1977	Not yet in force.	Still to be implemented.	Fisheries & Oceans/ Transport Canada	Convention on the safety of fishing vessels.
Torremolinos Protocol relating to the Torremolinos International Convention for the Safety of Fishing Vessels of April 2, 1977	2 April 1993 open for signature: 1 July 1993 - 30 June 1994	Not yet in force.	Still to be implemented.	Fisheries & Oceans/ Transport Canada	Eliminates provisions in the Convention that caused states difficulty and thereby enabling entry into force.

2. Fisheries (continued)

Instrument	Date Signed	Date In Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries, 1135 U.N.T.S. 369	24 October 1978	1 January 1979 (provisionally) 29 March 1979 (definitively)	*Coastal Fisheries Protection Act*	Fisheries & Oceans	To promote the conservation and optimum utilization of the fishery resources of the Northwest Atlantic area in accordance with the regime of extended coastal state jurisdiction over fisheries and to encourage international cooperation and consultation with respect to these resources.
Agreement on Fisheries between the Government of Canada and the European Economic Community, C.T.S. 1981/30 and C.T.S. 1984/2	30 December 1981	30 December 1981		Fisheries & Oceans	Coordinates efforts to conserve and manage living resources in waters adjacent to the coasts of Canada and EEC countries.
Convention for the Conservation of Salmon in the North Atlantic Ocean, 1338 U.N.T.S. 33	2 March 1982	1 October 1983	Canada is a contracting party to the North Atlantic Salmon Conservation Organization	Fisheries & Oceans	To promote the conservation, restoration, enhancement and national management of salmon stocks in the North Atlantic Ocean.
United Nations Convention on the Law of the Sea (LOSC), UN Doc. A/CONF. 62/122, reprinted in (1982) 21 I.L.M. 1261	10 December 1982	16 November 1994	Canada ratified the LOSC in November 2003.	Fisheries & Oceans	Sets out fisheries provisions in the articles dealing with the EEZ.
Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, reprinted in 33 I.L.M. 968	24 November 1993	24 April 2003	*Coastal Fisheries Protection Act*	Fisheries & Oceans	Regulates the re-flagging of fishing vessels.
Procès-Verbal applying the March 27, 1972 Agreement between Canada and France on their Mutual Fishing Relations	2 December 1994			Fisheries & Oceans	Promotes cooperation in fisheries management and conservation in each country's maritime area.
The Rome Consensus on World Fisheries	15 March 1995	Not applicable	Canada is signatory.	Fisheries & Oceans	Highlights current issues in marine fisheries management and conservation.

2. Fisheries (continued)

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of December 10, 1982 relating to the Conservation and Management of Straddling Fish Stocks, and Highly Migratory Fish Stocks (UNFA)	4 August 1995, open for signature on 4 December 1995	11 December 2001	Canada is signatory.	Fisheries & Oceans	Ensures long-term conservation and sustainable use of straddling and highly migratory fish stocks.
Food and Agriculture Organization of the United Nations, Code of Conduct for Responsible Fisheries, 1995.	31 October 1995		Canadian Code of Conduct for Responsible Fishing Operations developed and ratified.	Fisheries & Oceans	Establishes principles for responsible fishing, taking into account biological, technological, economic, social, environmental, and commercial aspects.
Kyoto Declaration and Plan of Action on the Sustainable Contribution of Fisheries to Food Security	9 December 1995		Implemented via *Canada's Oceans Strategy* and action plan, *Oceans Act* plans and programs, and Integrated Management Policy Framework.	Fisheries & Oceans	Emphasizes the importance of fisheries as a food source and the sustainable use of fisheries resources.

2. Fisheries (continued)

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries, 1135 U.N.T.S. 369	24 October 1978	1 January 1979 (provisionally) 29 March 1979 (definitively)	*Coastal Fisheries Protection Act*	Fisheries & Oceans	To promote the conservation and optimum utilization of the fishery resources of the Northwest Atlantic area in accordance with the regime of extended coastal state jurisdiction over fisheries and to encourage international cooperation and consultation with respect to these resources.
Agreement on Fisheries between the Government of Canada and the European Economic Community, C.T.S. 1981/30 and C.T.S. 1984/2	30 December 1981	30 December 1981		Fisheries & Oceans	Coordinates efforts to conserve and manage living resources in waters adjacent to the coasts of Canada and EEC countries.
Convention for the Conservation of Salmon in the North Atlantic Ocean, 1338 U.N.T.S. 33	2 March 1982	1 October 1983	Canada is a contracting party to the North Atlantic Salmon Conservation Organization	Fisheries & Oceans	To promote the conservation, restoration, enhancement and national management of salmon stocks in the North Atlantic Ocean.
United Nations Convention on the Law of the Sea (LOSC), UN Doc. A/CONF. 62/122, reprinted in (1982) 21 I.L.M. 1261	10 December 1982	16 November 1994	Canada ratified the LOSC in November 2003.	Fisheries & Oceans	Sets out fisheries provisions in the articles dealing with the EEZ.
Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, reprinted in 33 I.L.M. 968	24 November 1993	24 April 2003	*Coastal Fisheries Protection Act*	Fisheries & Oceans	Regulates the re-flagging of fishing vessels.
Procès-Verbal applying the March 27, 1972 Agreement between Canada and France on their Mutual Fishing Relations	2 December 1994			Fisheries & Oceans	Promotes cooperation in fisheries management and conservation in each country's maritime area.
The Rome Consensus on World Fisheries	15 March 1995	Not applicable	Canada is signatory.	Fisheries & Oceans	Highlights current issues in marine fisheries management and conservation.

2. Fisheries (continued)

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of December 10, 1982 relating to the Conservation and Management of Straddling Fish Stocks, and Highly Migratory Fish Stocks (UNFA)	4 August 1995, open for signature on 4 December 1995	11 December 2001	Canada is signatory.	Fisheries & Oceans	Ensures long-term conservation and sustainable use of straddling and highly migratory fish stocks.
Food and Agriculture Organization of the United Nations, Code of Conduct for Responsible Fisheries, 1995.	31 October 1995		Canadian Code of Conduct for Responsible Fishing Operations developed and ratified.	Fisheries & Oceans	Establishes principles for responsible fishing, taking into account biological, technological, economic, social, environmental, and commercial aspects.
Kyoto Declaration and Plan of Action on the Sustainable Contribution of Fisheries to Food Security	9 December 1995		Implemented via *Canada's Oceans Strategy* and action plan, *Oceans Act* plans and programs, and Integrated Management Policy Framework.	Fisheries & Oceans	Emphasizes the importance of fisheries as a food source and the sustainable use of fisheries resources.

3. Marine Conservation and Protection

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention), 996 U.N.T.S. 245, reprinted in 11 I.L.M. 969	2 February 1971	21 December 1975	*Canada Wildlife Act*	Environment Canada Canadian Heritage	Promotes conservation of wetlands and waterfowl and the establishment of wetland reserves.
Protocol to amend the Convention on Wetlands of International Importance especially as Waterfowl Habitat of February 2, 1971, with annex, 1437 U.N.T.S. 344, reprinted in 22 I.L.M. 698; with Amendments to the Convention on 28 May 1987		1 October 1986 1 May 1994 (amendments)		Environment Canada	
Declaration of the United Nations Conference on the Human Environment (Stockholm Declaration), UN Doc. A/CONF. 48/14/Rev. 1, reprinted in (1972) 11 I.L.M. 1416.	16 June 1972	Not applicable	Declaration's principles are included in *CEAA*, *CEPA* and *Oceans Act*	Environment Canada	Declaration of 26 international environmental law principles.
Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention) 1046 U.N.T.S. 120	13 November 1972	30 August 1975	*CEPA*, Part 7, Division 3	Environment Canada	Convention represents a further step towards the international control and prevention of marine pollution. Prohibits the disposal of certain hazardous materials, requires a prior special permit for the disposal of a number of other identified materials and a prior general permit for other wastes or matter.

3. Marine Conservation and Protection (continued)

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 and Regulations adopted by the Special Meeting, LC/SM 1/6	7 November 1996		*CEPA*, Part 7, Division 3	Environment Canada	Protocol's purpose is similar to that of the London Convention but more restrictive. It adopts a "reverse list" which prohibits disposal of all substances except those listed by the Protocol; incineration of wastes at sea is prohibited; and export of wastes for the purpose of disposal or incineration at sea is prohibited.
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES Convention), 993 U.N.T.S. 243, reprinted in 12 I.L.M. 1085	3 March 1973	1 July 1975, with amendments	WAPPRIITA, 1992	Environment Canada	Regulates international trade of any endangered species, e.g., sperm, fin, sei, blue, humpback, bowhead, right, byrd's, grey and bottlenose whales.
Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention), (1990) B.T.S. 87, reprinted in 19 I.L.M. 15	23 June 1979	1 November 1983	*Species at Risk Act*, First reading, February 2, 2001	Environment Canada	Provides a framework to enhance the conservation status of rare and threatened migratory species.
World Charter for Nature, adopted by United Nations General Assembly Resolution 37/7	28 October 1982	Non-binding	No obligations; Provisions implemented by *Oceans Act* and *Species at Risk Act*	Environment Canada	Proclaims general principles of conservation to guide human activity.
United Nations Convention on the Law of the Sea (LOSC), UN Doc. A/CONF. 62/122, reprinted in (1982) 21 I.L.M. 1261	10 December 1982	16 November 1994	Canada ratified the LOSC in November 2003 See also: *Oceans Act*	Environment Canada Fisheries & Oceans	Provides a comprehensive framework to protect and conserve the marine environment.
Vienna Convention for the Protection of the Ozone Layer, C.T.S. 1988/23, reprinted in 26 I.L.M. 1516	22 March 1985	22 September 1988	*Canadian Environmental Protection Act, 1999*	Environment Canada	Protects the ozone layer from adverse human activities.
Montreal Protocol on Substances that Deplete the Ozone Layer, C.T.S. 1989/42, reprinted in 26 I.L.M. 1541	16 September 1987	1 January 1989	*Federal Halocarbon Regulations, 2003*	Environment Canada	Attaches to the Convention and lists dates by which gases are to be banned.

3. Marine Conservation and Protection

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention), 996 U.N.T.S. 245, reprinted in 11 I.L.M. 969	2 February 1971	21 December 1975	*Canada Wildlife Act*	Environment Canada Canadian Heritage	Promotes conservation of wetlands and waterfowl and the establishment of wetland reserves.
Protocol to amend the Convention on Wetlands of International Importance especially as Waterfowl Habitat of February 2, 1971, with annex, 1437 U.N.T.S. 344, reprinted in 22 I.L.M. 698; with Amendments to the Convention on 28 May 1987		1 October 1986 1 May 1994 (amendments)		Environment Canada	
Declaration of the United Nations Conference on the Human Environment (Stockholm Declaration), UN Doc. A/CONF. 48/14/Rev. 1, reprinted in (1972) 11 I.L.M. 1416.	16 June 1972	Not applicable	Declaration's principles are included in *CEAA*, *CEPA* and *Oceans Act*	Environment Canada	Declaration of 26 international environmental law principles.
Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention) 1046 U.N.T.S. 120	13 November 1972	30 August 1975	*CEPA*, Part 7, Division 3	Environment Canada	Convention represents a further step towards the international control and prevention of marine pollution. Prohibits the disposal of certain hazardous materials, requires a prior special permit for the disposal of a number of other identified materials and a prior general permit for other wastes or matter.

3. Marine Conservation and Protection (continued)

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 and Regulations adopted by the Special Meeting, LC/SM 1/6	7 November 1996		*CEPA*, Part 7, Division 3	Environment Canada	Protocol's purpose is similar to that of the London Convention but more restrictive. It adopts a "reverse list" which prohibits disposal of all substances except those listed by the Protocol; incineration of wastes at sea is prohibited; and export of wastes for the purpose of disposal or incineration at sea is prohibited.
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES Convention), 993 U.N.T.S. 243, reprinted in 12 I.L.M. 1085	3 March 1973	1 July 1975, with amendments	WAPPRIITA, 1992	Environment Canada	Regulates international trade of any endangered species, e.g., sperm, fin, sei, blue, humpback, bowhead, right, byrd's, grey and bottlenose whales.
Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention), (1990) B.T.S. 87, reprinted in 19 I.L.M. 15	23 June 1979	1 November 1983	*Species at Risk Act*, First reading, February 2, 2001	Environment Canada	Provides a framework to enhance the conservation status of rare and threatened migratory species.
World Charter for Nature, adopted by United Nations General Assembly Resolution 37/7	28 October 1982	Non-binding	No obligations; Provisions implemented by *Oceans Act* and *Species at Risk Act*	Environment Canada	Proclaims general principles of conservation to guide human activity.
United Nations Convention on the Law of the Sea (LOSC), UN Doc. A/CONF. 62/122, reprinted in (1982) 21 I.L.M. 1261	10 December 1982	16 November 1994	Canada ratified the LOSC in November 2003 See also: *Oceans Act*	Environment Canada Fisheries & Oceans	Provides a comprehensive framework to protect and conserve the marine environment.
Vienna Convention for the Protection of the Ozone Layer, C.T.S. 1988/23, reprinted in 26 I.L.M. 1516	22 March 1985	22 September 1988	*Canadian Environmental Protection Act, 1999*	Environment Canada	Protects the ozone layer from adverse human activities.
Montreal Protocol on Substances that Deplete the Ozone Layer, C.T.S. 1989/42, reprinted in 26 I.L.M. 1541	16 September 1987	1 January 1989	*Federal Halocarbon Regulations, 2003*	Environment Canada	Attaches to the Convention and lists dates by which gases are to be banned.

3. Marine Conservation and Protection (continued)

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
Convention on Environmental Impact Assessment in a Transboundary Context, reprinted in 30 I.L.M. 800	25 February 1991	10 September 1997	*Canadian Environmental Assessment Act*	Environment Canada	To promote environmentally sound and sustainable economic development, though the application of environmental impact assessment, especially as a preventive measure against trans-boundary environmental degradation.
United Nations Framework Convention on Climate Change, C.T.S. 1994/7, reprinted in 31 I.L.M. 849 and Kyoto Protocol to the United Nations Framework Convention on Climate Change	9 May 1992	21 March 1994	Canada ratified the Kyoto Protocol in 2002.	Environment Canada	To stabilize greenhouse gas concentrations at a level that would prevent dangerous anthropogenic interference with the climate system.
Declaration of the United Nations Conference on Environment and Development (Rio Declaration), UN Doc. A/CONF.151/5/Rev.1, reprinted in (1992) 31 I.L.M. 874, endorsed by UN General Assembly Resolution 47/190 (1992).	13 June 1992	Non-binding	*Oceans Act*	Fisheries and Oceans	Introduces new principles e.g., polluter pays, public participation, and precautionary approach.
Convention on Biological Diversity, (1995) B.T.S. 51, reprinted in 31 I.L.M. 818	5 June 1992	29 September 1993	*Species at Risk Act* and Canadian Biodiversity Strategy <http://www.bco.ec.gc.ca/documents/CBS_E.pdf>	Fisheries and Oceans, Environment Canada	The conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out the utilization of genetic resources.
Jakarta Mandate on Marine and Coastal Biological Diversity, adopted at the Second Meeting of the Conference of the Parties to the Convention on Biological Diversity, UN Doc. UNEP/CBD/COP/2/19 and UN Doc. UNEP/CBD/COP/2/5	Sept 1995		*Species at Risk Act*	Fisheries and Oceans	Program of action that addresses the relationship among conservation, the use of biological diversity, and fishing activities.

3. Marine Conservation and Protection (continued)

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
Chapter 17 of Agenda 21: Programme of Action for Sustainable Development (Agenda 21), "Protection of the oceans, all kinds of seas, including enclosed and semi-enclosed seas, and coastal areas and the protection, rational use and development of their living resources" June 1992, UN Doc. A/CONF. 151/26/REV. 1, Vols. I–III (1992).	June 1992		Canadian Oceans Strategy and *Oceans Act*	Fisheries and Oceans	Provides the basis upon which to pursue the protection and sustainable development and management of the marine environment and ocean resources.
North American Agreement on Environmental Cooperation between the Government of Canada, the Government of the United Mexican States and the Government of the United States of America, reprinted in 32 I.L.M. 1480	12 and 14 September 1993	1 January 1994	*Fisheries Act, CEPA, Oceans Act, CEAA*	Environment Canada	Complements the environmental provisions of the North American Free Trade Agreement.
IUCN (the World Conservation Union) Draft International Covenant on Environment and Development, 2000	No legal status	Non-binding			Elaborates on principles in the Rio Declaration, Agenda 21, Climate Change Convention, and Biodiversity Convention.
Washington Declaration on Protection of the Marine Environment from Land-based Activities, Report of the Conference, UNEP (OCA)/LBA/ IG.2/6, Annex II, reprinted in (1996) 26 Environmental Policy and Law 37	3 November 1995		National Program of Action	Fisheries and Oceans Environment Canada	Provides guidelines to devise and implement action to prevent, reduce, control and/or eliminate marine degradation from land-based activities.
Global Programme of Action for the Protection of the Marine Environment from Land-based Activities, UNEP (OCA)/LBA/ IG.2/7, reprinted in (1996) 26 Environmental Policy and Law 38.	5 December 1995		National Program of Action	Fisheries and Oceans Environment Canada	Provides approaches to prevent pollution sources and the physical alteration and destruction of habitats.

3. Marine Conservation and Protection (continued)

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
Convention on Environmental Impact Assessment in a Transboundary Context, reprinted in 30 I.L.M. 800	25 February 1991	10 September 1997	*Canadian Environmental Assessment Act*	Environment Canada	To promote environmentally sound and sustainable economic development, though the application of environmental impact assessment, especially as a preventive measure against trans-boundary environmental degradation.
United Nations Framework Convention on Climate Change, C.T.S. 1994/7, reprinted in 31 I.L.M. 849 and Kyoto Protocol to the United Nations Framework Convention on Climate Change	9 May 1992	21 March 1994	Canada ratified the Kyoto Protocol in 2002.	Environment Canada	To stabilize greenhouse gas concentrations at a level that would prevent dangerous anthropogenic interference with the climate system.
Declaration of the United Nations Conference on Environment and Development (Rio Declaration), UN Doc. A/CONF.151/5/Rev.1, reprinted in (1992) 31 I.L.M. 874, endorsed by UN General Assembly Resolution 47/190 (1992).	13 June 1992	Non-binding	*Oceans Act*	Fisheries and Oceans	Introduces new principles e.g., polluter pays, public participation, and precautionary approach.
Convention on Biological Diversity, (1995) B.T.S. 51, reprinted in 31 I.L.M. 818	5 June 1992	29 September 1993	*Species at Risk Act* and Canadian Biodiversity Strategy <http://www.bco.ec.gc.ca/documents/CBS_E.pdf>	Fisheries and Oceans, Environment Canada	The conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out the utilization of genetic resources.
Jakarta Mandate on Marine and Coastal Biological Diversity, adopted at the Second Meeting of the Conference of the Parties to the Convention on Biological Diversity, UN Doc. UNEP/CBD/COP/2/19 and UN Doc. UNEP/CBD/COP/2/5	Sept 1995		*Species at Risk Act*	Fisheries and Oceans	Program of action that addresses the relationship among conservation, the use of biological diversity, and fishing activities.

3. Marine Conservation and Protection (continued)

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
Chapter 17 of Agenda 21: Programme of Action for Sustainable Development (Agenda 21), "Protection of the oceans, all kinds of seas, including enclosed and semi-enclosed seas, and coastal areas and the protection, rational use and development of their living resources" June 1992, UN Doc. A/CONF. 151/26/REV. 1, Vols. I–III (1992).	June 1992		Canadian Oceans Strategy and *Oceans Act*	Fisheries and Oceans	Provides the basis upon which to pursue the protection and sustainable development and management of the marine environment and ocean resources.
North American Agreement on Environmental Cooperation between the Government of Canada, the Government of the United Mexican States and the Government of the United States of America, reprinted in 32 I.L.M. 1480	12 and 14 September 1993	1 January 1994	*Fisheries Act, CEPA, Oceans Act, CEAA*	Environment Canada	Complements the environmental provisions of the North American Free Trade Agreement.
IUCN (the World Conservation Union) Draft International Covenant on Environment and Development, 2000	No legal status	Non-binding			Elaborates on principles in the Rio Declaration, Agenda 21, Climate Change Convention, and Biodiversity Convention.
Washington Declaration on Protection of the Marine Environment from Land-based Activities, Report of the Conference, UNEP (OCA)/LBA/ IG.2/6, Annex II, reprinted in (1996) 26 Environmental Policy and Law 37	3 November 1995		National Program of Action	Fisheries and Oceans Environment Canada	Provides guidelines to devise and implement action to prevent, reduce, control and/or eliminate marine degradation from land-based activities.
Global Programme of Action for the Protection of the Marine Environment from Land-based Activities, UNEP (OCA)/LBA/ IG.2/7, reprinted in (1996) 26 Environmental Policy and Law 38.	5 December 1995		National Program of Action	Fisheries and Oceans Environment Canada	Provides approaches to prevent pollution sources and the physical alteration and destruction of habitats.

3. Marine Conservation and Protection (continued)

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
Migratory Bird Convention, 1916 and 1995 Protocol.	16 August 1916	1995 Protocol in force on 7 October 1999	*Migratory Birds Convention Act, 1994*	Environment Canada, CWS	The Convention provides for cooperation between Canada and the United States in the protection and management of migratory birds.
Johannesburg Plan of Implementation from the World Summit on Sustainable Development, 2002	4 September 2002	Not applicable	*Oceans Act, Species at Risk Act, CEPA, Canada Shipping Act, etc.*	Environment Canada	Sections 30–36 cover broad aspects related to oceans, sustainable fisheries, marine pollution, maritime safety, and scientific understanding and assessment of marine and coastal ecosystems as a fundamental basis for sound decision making.

4. Marine Science and Technology

Instrument	Date Signed	Date In Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
Convention of the World Meteorological Organisation, 77 U.N.T.S. 143; Amendments to the Convention adopted by resolutions of the World Meteorological Organization: 1 April 1959 (Art. 10(1) (2), 15 April 1959 (Art. 13), 11 and 27 April 1963 (several articles), 11 and 26 April 1967 (Arts. 4(b), 12(c) and French text of Art. 13(a)), 28 April and 23 May 1975 (several articles).	11 October 1947	23 March 1950	Implemented via Atmospheric Environment Service	Environment Canada	Facilitates the establishment of networks of meteorological observation stations and centres, and systems for exchange of weather information.
Convention for the International Council for the Exploration of the Sea, (ICES), 652 U.N.T.S. 237, reprinted in 7 I.L.M. 302; Protocol to the Convention for the International Council for the Exploration of the Sea of September 12, 1964, 1003 U.N.T.S. 402	12 September 1964 13 August 1970 (Protocol)	22 July 1968 12 November 1975 (Protocol)	The Canadian government participates in ICES Working Groups	Fisheries and Oceans	ICES provides advice at the international level on scientific and policy matters concerning fisheries, pollution and other marine environment issues.

Convention on the International Hydrographic Organization, 751 U.N.T.S. 41	3 May 1967	22 September 1970	DFO/CHS participates in IHO processes	Canadian Hydrographic Service, DFO	Promotes reliable and efficient scientific practice in hydrography and navigation.

5. Marine Transportation

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
Convention on the Intergovernmental Maritime Consultative Organization, 289 U.N.T.S. 48	6 March 1948	17 March 1958	Canada became a member of the IMO in 1948 and plays an active role in its functions.	Transport Canada	The IMO was designed to provide the machinery for cooperation among governments in the field of shipping, international trade, maritime safety, navigation and prevention and control of marine pollution. This organization has served the interests of maritime affairs through out the world.
Convention on Facilitation of International Maritime Traffic, 591 U.N.T.S., reprinted in 4 I.L.M. 502	9 April 1965	5 March 1967	Canada deposited an instrument of acceptance on 28 August 1967	Transport Canada	Main objectives are to: prevent unnecessary delays in maritime traffic; aid co-operation between Governments; and secure the highest practicable degree of uniformity in formalities and other procedures.
International Convention on Load Lines, 1966, 640 U.N.T.S. 133; and Protocol of 1988 relating to the International Convention on Load Lines of April 5, 1966	5 April 1966 11 November 1988 (Protocol)	21 July 1968 Protocol not yet in force	Stability, Subdivision and Load Line Standards (1975)	Transport Canada	Establishes uniform principles and rules with respect to the limits to which ships on international voyages may be loaded, having due regard to the need for safeguarding life and property at sea.
International Convention on Tonnage Measurement of Ships, 1969, (Tonnage Convention), 1291 U.N.T.S.	23 June 1969	18 July 1982	Standard for the Tonnage Measurement of Ships (2000)	Transport Canada	Determines the allowable tonnage of ships on international voyages. Exceptions are made for various inland seas, such as the Great Lakes and international waterways.

3. Marine Conservation and Protection (continued)

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
Migratory Bird Convention, 1916 and 1995 Protocol.	16 August 1916	1995 Protocol in force on 7 October 1999	*Migratory Birds Convention Act, 1994*	Environment Canada, CWS	The Convention provides for cooperation between Canada and the United States in the protection and management of migratory birds.
Johannesburg Plan of Implementation from the World Summit on Sustainable Development, 2002	4 September 2002	Not applicable	*Oceans Act, Species at Risk Act, CEPA, Canada Shipping Act, etc.*	Environment Canada	Sections 30–36 cover broad aspects related to oceans, sustainable fisheries, marine pollution, maritime safety, and scientific understanding and assessment of marine and coastal ecosystems as a fundamental basis for sound decision making.

4. Marine Science and Technology

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
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Convention for the International Council for the Exploration of the Sea, (ICES), 652 U.N.T.S. 237, reprinted in 7 I.L.M. 302; Protocol to the Convention for the International Council for the Exploration of the Sea of September 12, 1964, 1003 U.N.T.S. 402	12 September 1964 13 August 1970 (Protocol)	22 July 1968 12 November 1975 (Protocol)	The Canadian government participates in ICES Working Groups	Fisheries and Oceans	ICES provides advice at the international level on scientific and policy matters concerning fisheries, pollution and other marine environment issues.

Convention on the International Hydrographic Organization, 751 U.N.T.S. 41	3 May 1967	22 September 1970	DFO/CHS participates in IHO processes	Canadian Hydrographic Service, DFO	Promotes reliable and efficient scientific practice in hydrography and navigation.

5. Marine Transportation

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
Convention on the Intergovernmental Maritime Consultative Organization, 289 U.N.T.S. 48	6 March 1948	17 March 1958	Canada became a member of the IMO in 1948 and plays an active role in its functions.	Transport Canada	The IMO was designed to provide the machinery for cooperation among governments in the field of shipping, international trade, maritime safety, navigation and prevention and control of marine pollution. This organization has served the interests of maritime affairs through out the world.
Convention on Facilitation of International Maritime Traffic, 591 U.N.T.S., reprinted in 4 I.L.M. 502	9 April 1965	5 March 1967	Canada deposited an instrument of acceptance on 28 August 1967	Transport Canada	Main objectives are to: prevent unnecessary delays in maritime traffic; aid co-operation between Governments; and secure the highest practicable degree of uniformity in formalities and other procedures.
International Convention on Load Lines, 1966, 640 U.N.T.S. 133; and Protocol of 1988 relating to the International Convention on Load Lines of April 5, 1966	5 April 1966 11 November 1988 (Protocol)	21 July 1968 Protocol not yet in force	Stability, Subdivision and Load Line Standards (1975)	Transport Canada	Establishes uniform principles and rules with respect to the limits to which ships on international voyages may be loaded, having due regard to the need for safeguarding life and property at sea.
International Convention on Tonnage Measurement of Ships, 1969, (Tonnage Convention), 1291 U.N.T.S.	23 June 1969	18 July 1982	Standard for the Tonnage Measurement of Ships (2000)	Transport Canada	Determines the allowable tonnage of ships on international voyages. Exceptions are made for various inland seas, such as the Great Lakes and international waterways.

5. Marine Transportation (continued)

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 970 U.N.T.S. 211; and Protocol Relating to Intervention on the High Seas in Cases of Marine Pollution by Substances other than Oil, 1313 U.N.T.S. 3, reprinted in 13 I.L.M. 605	29 November 1969 2 November 1973 (Protocol)	6 May 1975 30 March 1983 (Protocol)	*Canada Shipping Act*	Transport Canada	Affirms the right of a coastal state to take measures on the high seas to prevent, mitigate or eliminate danger to its coastline or related interests following a maritime casualty.
International Convention on Civil Liability for Oil Pollution Damage, 973 U.N.T.S. 3; Protocol, 19 November 1976, entered into force: 8 April 1981; Protocol, 25 May 1984; Protocol, 27 November 1992, entered into force: 30 May 1996.	29 November 1969	19 June 1975	*Canada Shipping Act*	Transport Canada	The aim is to ensure that adequate compensation is available to persons who suffer oil pollution damage resulting from maritime causalities involving oil-carrying ships.
International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1110 U.N.T.S. 57, reprinted in 11 I.L.M. 284; Protocol to amend the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage of December 18, 1971, B.T.S. 87(1996)	18 December 1971 27 November 1992 (Protocol)	16 October 1978 30 May 1996 (Protocol)	*Canada Shipping Act*	Transport Canada	The Fund established by the Convention provides cover for catastrophic pollution incidents. It is financed by levies on the import and export of oil in contracting states.
Convention on the International Regulations for Preventing Collisions at Sea, 1050 U.N.T.S. 16	20 October 1972	15 July 1977	*Canada Shipping Act*	Transport Canada Coast Guard	Attempts to bring up-to-date the principles of SOLAS, 1960. Sets out the rules pertaining to steering and sailing, the conduct of vessels in sight of each other and in restricted visibility.

5. Marine Transportation (continued)

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
International Convention for Safe Containers, with Amendments to the Convention and Annexes on: 2 April 1981, 13 June 1983, 17 May, 1991, 4 November 1993.	2 December 1972	6 September 1977	*Safe Containers Convention Act*, 1980-81-82-83	Transport Canada	To maintain a high level of safety of human life in the transport and handling of containers by providing generally acceptable test procedures and related strength requirements that have proven adequate over the years. To facilitate the international transport of containers by providing uniform international safety regulations, equally applicable to all modes of surface transport.
International Convention for the Prevention of Pollution from Ships, 1973, 1340 U.N.T.S. 184, not intended to enter into force and be applied on its own but to be incorporated in, and read and interpreted with the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships of November 2, 1973 (MARPOL 73/78), 17 February 1978, 1340 U.N.T.S. 61, reprinted in 17 I.L.M. 546, entered into force: 2 October 1983	2 November 1973		*Marine Liability Act*, S.C. 2001	Transport Canada Coast Guard	Covers all the technical aspects of pollution from ships, except the disposal of waste into the sea by dumping, and applies to ships of all types, although it does not apply to pollution arising out of the exploration and exploitation of sea-bed mineral resources.

5. Marine Transportation (continued)

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 970 U.N.T.S. 211; and Protocol Relating to Intervention on the High Seas in Cases of Marine Pollution by Substances other than Oil, 1313 U.N.T.S. 3, reprinted in 13 I.L.M. 605	29 November 1969 2 November 1973 (Protocol)	6 May 1975 30 March 1983 (Protocol)	*Canada Shipping Act*	Transport Canada	Affirms the right of a coastal state to take measures on the high seas to prevent, mitigate or eliminate danger to its coastline or related interests following a maritime casualty.
International Convention on Civil Liability for Oil Pollution Damage, 973 U.N.T.S. 3; Protocol, 19 November 1976, entered into force: 8 April 1981; Protocol, 25 May 1984; Protocol, 27 November 1992, entered into force: 30 May 1996.	29 November 1969	19 June 1975	*Canada Shipping Act*	Transport Canada	The aim is to ensure that adequate compensation is available to persons who suffer oil pollution damage resulting from maritime causalities involving oil-carrying ships.
International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1110 U.N.T.S. 57, reprinted in 11 I.L.M. 284, Protocol to amend the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage of December 18, 1971, B.T.S. 87(1996)	18 December 1971 27 November 1992 (Protocol)	16 October 1978 30 May 1996 (Protocol)	*Canada Shipping Act*	Transport Canada	The Fund established by the Convention provides cover for catastrophic pollution incidents. It is financed by levies on the import and export of oil in contracting states.
Convention on the International Regulations for Preventing Collisions at Sea, 1050 U.N.T.S. 16	20 October 1972	15 July 1977	*Canada Shipping Act*	Transport Canada Coast Guard	Attempts to bring up-to-date the principles of SOLAS, 1960. Sets out the rules pertaining to steering and sailing, the conduct of vessels in sight of each other and in restricted visibility.

5. Marine Transportation (continued)

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
International Convention for Safe Containers, with Amendments to the Convention and Annexes on: 2 April 1981, 13 June 1983, 17 May, 1991, 4 November 1993.	2 December 1972	6 September 1977	*Safe Containers Convention Act*, 1980-81-82-83	Transport Canada	To maintain a high level of safety of human life in the transport and handling of containers by providing generally acceptable test procedures and related strength requirements that have proven adequate over the years. To facilitate the international transport of containers by providing uniform international safety regulations, equally applicable to all modes of surface transport.
International Convention for the Prevention of Pollution from Ships, 1973, 1340 U.N.T.S. 184, not intended to enter into force and be applied on its own but to be incorporated in, and read and interpreted with the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships of November 2, 1973 (MARPOL 73/78), 17 February 1978, 1340 U.N.T.S. 61, reprinted in 17 I.L.M. 546, entered into force: 2 October 1983	2 November 1973		*Marine Liability Act*, S.C. 2001	Transport Canada Coast Guard	Covers all the technical aspects of pollution from ships, except the disposal of waste into the sea by dumping, and applies to ships of all types, although it does not apply to pollution arising out of the exploration and exploitation of sea-bed mineral resources.

5. Marine Transportation (continued)

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
International Convention for the Safety of Life at Sea, 1974, (SOLAS), 1184 U.N.T.S. 2, reprinted in 14 I.L.M. 963	1 November 1974	25 May 1980	Port State Control Programs	Transport Canada	The main objective of the SOLAS Convention is to specify minimum standards for the construction, equipment and operation of ships, compatible with their safety.
International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, 1361 U.N.T.S. 2	7 July 1978	28 April 1984	Port State Control MOUs	Transport Canada	By establishing international standards for training, certification and watch keeping, the IMO's objectives are to promote safety of life and property at sea, protect the marine environment and ensure that seafarers on board ships are qualified and fit for their duties.
Convention on Maritime Search and Rescue, 1979, (SAR), 1405 U.N.T.S. 97	27 April 1979	22 June 1985	*Canada Shipping Act*, 2001	Fisheries and Oceans Transport Canada	Parties to this Convention agreed to promote co-operation among search and rescue organizations around the world and among those participating in search and rescue operations at sea.
Paris Memorandum of Understanding on Port State Control	26 January 1982	1 July 1982	Port State Control Program	Transport Canada	Port State Control is a ship inspection program whereby foreign vessels entering a sovereign state's waters are boarded and inspected to ensure compliance with various major international maritime conventions.
Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention), UN Doc. UNEP/WG.190/4, reprinted in 28 I.L.M. 649	22 March 1989	5 May 1992	*Export and Import of Hazardous Wastes Regulations*	Environment Canada	Seeks to reduce the generation and the transboundary movement of hazardous waste and to ensure environmentally sound management practices.

5. Marine Transportation (continued)

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
International Convention on Salvage, 1989, B.T.S. 93 (1996)	28 April 1989	14 July 1996	*Canada Shipping Act*, 2001	Transport Canada	A response to the growing concern for the environment and demonstrates the need to review the rules presently contained the 1910 Salvage Convention. The new agreement would create stricter requirements of the parties, especially with respect to the protection of the marine environment.
International Convention on Oil Pollution Preparedness, Response and Cooperation, 1990, B.P.P. Misc. 38(1994)	30 November 1990	13 May 1995	MOU between Transport Canada and Fisheries and Oceans respecting marine transportation safety and environmental protection	Transport Canada, Fisheries and Oceans	Purpose is to provide a global framework for international co-operation in combating major incidents or threats of marine pollution. Parties will be required to establish measures for dealing with pollution incidents, either nationally or in co-operation with other countries.
International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea (HNS) 1996	3 May 1996	not yet in force	signed by Canada on 9 September 1997	Transport Canada	The Convention sets out provisions governing the liability of ship owners and seeks to ensure that adequate, prompt and effective compensation is available to persons who suffer damage caused by incidents in connection with the carriage by sea of hazardous and noxious substances.
Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances (OPPRC-HNS Protocol)	15 March 2000	not yet in force		Transport Canada	Will ensure that ships carrying hazardous and noxious substances will be covered by regimes similar to those in place for oil incidents.

5. Marine Transportation (continued)

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International Convention for the Safety of Life at Sea, 1974, (SOLAS), 1184 U.N.T.S. 2, reprinted in 14 I.L.M. 963	1 November 1974	25 May 1980	Port State Control Programs	Transport Canada	The main objective of the SOLAS Convention is to specify minimum standards for the construction, equipment and operation of ships, compatible with their safety.
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5. Marine Transportation (continued)

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
Guidelines for the Control and Management of Ships' Ballast Water to Minimize the Transfer of Harmful Aquatic Organisms and Pathogens	27 November 1997	Non-binding	Canadian Guidelines	Transport Canada	To minimize the risk of introducing harmful aquatic organisms and pathogens from ships' ballast water.
Convention on the Control of Harmful Anti-fouling Systems on Ships	5 October 2001	Not in force	Pest Management Review Agency, Health Canada	Transport Canada, Health Canada	Prohibits the use of harmful organotins in anti-fouling paints used on ships and will establish a mechanism to prevent the potential future use of other harmful substances in anti-fouling systems.
Draft International Convention for the Control and Management of Ships' Ballast Water and Sediments, MEPC 46/3/2 January 2001	To be adopted in February 2004	Not in force		Transport Canada	Includes mandatory requirements for a Ballast Water and Sediments Management Plan, a Ballast Water Record Book and a requirement that new ships carry out ballast water and sediment management procedures.
Agreement between the Government of Canada and the Government of the United States of America concerning the Transboundary Movement of Hazardous Waste	28 October 1986	8 November 1986	*Canadian Environmental Protection Act*	Environment Canada	To ensure that the treatment, storage, and disposal of hazardous waste are conducted so as to reduce the risks to public health, property, and environmental quality, and to facilitate the control of transboundary shipments of hazardous waste between the U.S. and Canada.
Decision of the Council of the Organisation for Economic Co-operation and Development concerning the control of transfrontier movements of wastes destined for recovery operations	30 March 1992	6 April 1992	CEPA, Export and Import of Hazardous Wastes Regulations	Environment Canada	Provides a simplified means of controlling transboundary movements of wastes destined for environmentally sound recovery/recycling operations.

6. Maritime Defence

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation, CTS 1993/10, reprinted in 27 I.L.M. 668.	10 March 1988	1 March 1992	Criminal Code	RCMP	Intended to limit human suffering caused by terrorist acts, acts of indiscretion, racism, acts against the safety of maritime navigation, or any other state/ national behaviour in maritime affairs which jeopardizes human rights.
Protocol for the Suppression of Unlawful Acts Against the Safety of Fixed Platforms Located on the Continental Shelf, CTS 1993/9, reprinted in 27 I.L.M. 685	10 March 1988	1 March 1992	Criminal Code	RCMP	This protocol will help to ensure the security of fixed platforms (i.e., oil rigs and other valuable/ potentially dangerous structures) on the continental shelves.
United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, CTS 1990/42, reprinted in 28 I.L.M. 493	20 December 1988	11 November 1990	Criminal Code	RCMP	Improving international co-operation in that field and further strengthening the existing international instruments for the control of narcotic drugs and psychotropic substances.
Agreement on Illicit Traffic by Sea, Implementing Article 17 of the United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of December 20, 1988, E.T.S. 156.	31 January 1995	1 May 2000	Criminal Code	RCMP	Sets up a basis for international co-operation between Parties, defines rules as regard competent authorities, rules governing the exercise of jurisdiction, proceedings, authorised measures, responsibilities for enforcement measures, and other general rules.
International Ship and Port Facility Security Code	13 December 2002	1 July 2004	Marine Security Coordination Program	Transport Canada	Provides a standardized, consistent framework for evaluating risk, enabling governments to offset changes in threat with changes in vulnerability for ships and port facilities.

5. Marine Transportation (continued)

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7. Oil and Gas

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
Guidelines and standards for the removal of offshore installations and structures on the Continental Shelf and in the Exclusive Economic Zone, IMO Resolution A.672(16).	Adopted on 19 October 1989	Non-binding	NS Offshore Drilling Regulations, NS Offshore Petroleum Installations Regulations & NS Offshore Production and Conservation Regulations	CNSOPB	Abandoned or disused offshore installations or structures are required to be removed, except where non-removal or partial removal is consistent with the guidelines and standards.
1982 UNEP Guidelines Concerning the Environment Related to Offshore Mining and Drilling Within the Limits of National Jurisdiction	1982	Non-binding	CNSOPB's regulations and standards (for drilling only)	NRCan/ CNSOPB	Recommendations only.
IMO Code for the Construction and Equipment of Mobile Offshore Drilling Units, 1989	1989	amendments became effective 1 February 1992	Standards Respecting Mobile Offshore Drilling Units and NS Offshore Petroleum Installations Regulations	Transport Canada, CNSOPB	Introduces a harmonized system of survey and certification, provides guidelines for vessels with dynamic positioning systems, and introduces provisions for helicopter facilities.

8. Recreation, Culture and Tourism

Instrument	Date Signed	Date in Force	Implementation in Domestic Law/ Policy	Lead Agency	Content
Convention for the Protection of the World Cultural and Natural Heritage, 1037 U.N.T.S. 151	23 November 1972	17 December 1975	Canadian Heritage programs	Parks Canada NS Tourism & Culture	To establish an effective system of collective protection of the cultural and natural heritage of outstanding universal value, organized on a permanent basis and in accordance with modern scientific methods.
Buenos Aires Draft Convention on the Protection of the Underwater Cultural Heritage, August 1994	1994	not yet in force	Canadian Heritage programs	Parks Canada, NS Tourism and Culture	Provides basic protection beyond the territorial sea for sensitive and precious heritage.
UNESCO Convention for the Protection of Underwater Cultural Heritage, 1998	2 November 2001	not yet in force	Canadian Heritage programs	Parks Canada, NS Tourism and Culture	Concerns the rights of coastal states in relation to underwater cultural heritage in the territorial sea, the EEZ, and on the continental shelf.

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1982 UNEP Guidelines Concerning the Environment Related to Offshore Mining and Drilling Within the Limits of National Jurisdiction	1982	Non-binding	CNSOPB's regulations and standards (for drilling only)	NRCan/ CNSOPB	Recommendations only.
IMO Code for the Construction and Equipment of Mobile Offshore Drilling Units, 1989	1989	amendments became effective 1 February 1992	Standards Respecting Mobile Offshore Drilling Units and NS Offshore Petroleum Installations Regulations	Transport Canada, CNSOPB	Introduces a harmonized system of survey and certification, provides guidelines for vessels with dynamic positioning systems, and introduces provisions for helicopter facilities.

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5.0 SUMMARY AND KEY CHALLENGES

This *Regulatory Overview* examined the key domestic regulatory processes governing each of the sectors under study:

- Communications and Submarine Cables;
- Fisheries;
- Marine Conservation and Protection;
- Marine Science and Technology;
- Marine Transportation;
- Maritime Defence;
- Oil and Gas; and
- Recreation, Culture and Tourism.

The Eastern Scotian Shelf Oceans Management Area has traditionally been managed on a sectoral and multi-jurisdictional basis. This has two important implications for the ESSIM Initiative. First, as decisions have been made primarily on a sectoral basis, horizontal integration is not widely practiced. Secondly, as the sectors have been regulated by international, federal, joint federal-provincial and provincial agencies/departments, oftentimes with little formal consultation among the regulators, there is also little evidence of vertical integration.

The principal regulatory agency of each sector has typically made regulatory decisions, such as the granting of licences, permits, and approvals or the announcement of a new use, without extensive consultation with regulatory/advisory agencies of other sectors. This is not to say, however, that there has been no intersectoral integration amongst the sectors. Indeed, a number of Memoranda of Understanding have been signed among the key regulating departments / agencies of each sector. Such steps are important to making the "first steps" to formalized integration initiatives.

Despite the fact that many MOUs exist and are currently in effect in the ESSIM area, it has been observed that they are either ignored or are not readily "available" within or among the affected departments / agencies. Therefore, a number of improvements may be made to strengthen and in some cases, revitalize existing integration. They include:

- Identifying the integration "gaps" and encouraging discussions among the various sectors to draft MOUs;
- Collecting the existing MOUs and making them readily available for consultation;
- Evaluating the various MOUs already in existence and identifying ones which may be "revitalized" as well as those which can serve as model agreements; and
- Commencing integrated decision-making among the various sectors.

If this document is to maintain its usefulness for the multistakeholder community, it will require periodic updating to keep abreast of developments in international, national, and provincial law and policy related to ocean management. The concerted efforts of the Scotian Shelf regulatory community in this regard would be most beneficial.